

2001 – 2003 Biennial State Plan

Washington State Emergency Medical Services and Trauma Care System Plan

July 2001



Washington State Department of

Health

Health Systems Quality Assurance
Office of Emergency Medical and Trauma Prevention

2001 – 2003 Biennial State Plan

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East Region EMS & Trauma Care Council
North Region EMS & Trauma Care Council
North Central Region EMS & Trauma Care Council
Northwest Region EMS & Trauma Care Council
South Central Region EMS & Trauma Care Council
Southwest Region EMS & Trauma Care Council
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(AVAILABLE ON REQUEST OR ON THE WEB AT:

[http://www.doh.wa.gov/hsqa/emtp/pub&rept.htm#Regional EMS and Trauma Documents](http://www.doh.wa.gov/hsqa/emtp/pub&rept.htm#Regional%20EMS%20and%20Trauma%20Documents))

- Central Region EMS & Trauma Plan
- East Region EMS & Trauma Plan
- North Region EMS & Trauma Plan
- North Central Region EMS & Trauma Plan
- Northwest Region EMS & Trauma Plan
- South Central Region EMS & Trauma Plan
- Southwest Region EMS & Trauma Plan
- West Region EMS & Trauma Plan

Mission Statement

Office of Emergency Medical and Trauma Prevention

Mission Statement – To establish and promote a system of emergency medical and trauma services. Such a system provides timely and appropriate delivery of emergency medical treatment for people with acute illness and traumatic injury, and recognizes the changing methods and environment for providing optimal emergency care throughout the state of Washington.

Preface

Trauma is an epidemic of concerning proportions. Each year, over 140,000 Americans' lives are ended - suddenly, unexpectedly, brutally - by this killer. It has been aptly called the last major plague of the young, for trauma kills more Americans between the ages of one and thirty-four than all other diseases combined. But trauma is more than a plague of the young: Trauma is the leading cause of death for people aged 1 – 44, and the leading cause of disability for all people under age sixty-five.

While health and illness care, in general, have made extraordinary advances during the last forty years, the battle to abate the trauma epidemic has seen only limited success. Three major factors account for this.

First, the medical specialty of emergency medicine and trauma care is relatively new. The concept of early field intervention and immediate transport to an acute care center with highly skilled health care professionals prepared to provide early, definitive care was only recently developed, a by-product of the Vietnam conflict. Moreover, trauma care has limitations. Regardless of advances in technology and techniques, a surgeon can only do so much to save a child with a flail chest, a mother with a crushed spine, a youth struck in a drive-by shooting.

Second, injury prevention, a powerful weapon in the fight against trauma, suffers from a lack of drama and immediacy. Too often the blaring sirens and flashing lights of the emergent, acute care component of trauma overshadow the seemingly mundane arena of prevention. Too often cavalier, fatalistic attitudes that "accidents" are "inevitable" justify inaction and create a cycle that feeds upon itself. Yet, from changes in product safety to changes in personal behavior, prevention has the potential of being the most effective and least costly means for reducing the occurrence of trauma.

And third, the development of a trauma care system - a system which assures that the required resources are available and the necessary infrastructure is in place to deliver the "right" patient to the "right" facility in the "right" amount of time - entails broad consensus and cooperation among divergent groups and around complex logistical, political, financial, legal and medical issues. In some states, attempts to develop such a system have succeeded; in others they have failed.

Given the nature of the epidemic, a comprehensive trauma care system, which includes a strong injury prevention component, holds the most promise for curbing this brutal epidemic. Thirty to forty percent of all trauma deaths occur within hours of the injury, usually from shock and/or internal bleeding. Virtually all of these deaths are considered inappropriate and preventable, and should not occur if an organized trauma system were in place. Moreover, many trauma deaths, and particularly those that occur within

minutes of injury and for which there are no effective medical treatments, could be avoided through an effective injury prevention infrastructure and programs.

Washington State is continuing its tradition of being in the forefront in confronting this epidemic. In 1990, far-reaching legislation was adopted which called for the development of a comprehensive statewide trauma care system. This legislation was the culmination of a series of initiatives which began in the late 1960's with the University of Washington pioneering the development of paramedic training programs; continued through the 1970's with the establishment of legislatively-mandated minimum standards for prehospital providers and services, and certification for paramedics and other advance life support personnel; and concluded in the late 1980's with the completion of the "Washington State Trauma Patient Tracking Study," and the development of the *1990 Washington State Trauma Project: A Report to the State Legislature*.

The key components of this 1990 legislation, the *Trauma Care Systems Act*, include:

- *Clear lines of authority and responsibility;*
- *Designation of services;*
- *Trauma care services;*
- *Verification of prehospital trauma services;*
- *Field triage criteria development;*
- *Regional planning and implementation;*
- *Cost containment considerations;*
- *Integration of trauma/injury prevention as the first component of the system;*
- *Trauma registry development;*
- *Establishment of regional quality assurance/improvement programs;*
- *Integration of trauma rehabilitation services; and,*
- *Evaluation of system effectiveness.*

In addition, particular attention has been focused on the needs of rural and Native American communities; on integrating the continuum of care from prevention and first responder agencies to the acute care treatment centers and through rehabilitation services; and on empowering the regions within the state to identify and address the unique needs, circumstances and conditions they each must face.

In the past, the closures of trauma centers in California and Florida attracted much national attention. In part, these closures reflect a necessary evolution and refinement of the trauma systems in those states. More significantly, however, they demonstrate the necessity for careful consideration of the economic consequences of trauma care and trauma system development. The commitment of our society to provide the resources necessary to maintain the operation of a successful trauma care system is a fundamental prerequisite. The intent of the Trauma Care Fund Act of 1997 was to focus on the resource issue. Passage of this act provided approximately \$24 million per biennium, plus federal matching funds, to address reimbursement issues and costs associated with providing trauma care.

The integration of the trauma system with the existing EMS system is being implemented; community-based prevention projects have been implemented statewide; the initial designation of trauma care facilities is completed with geographic coverage statewide; the implementation of the statewide trauma registry is well underway, and regional quality assurance/improvement programs are being initiated. Stable and continuous funding is vital to this crucial phase of system development.

Executive Summary

The Washington Emergency Medical Services and Trauma Act of 1990 declares that a trauma care system, one which delivers the "right" patient to the "right" facility in the "right" amount of time, would be cost effective, assure appropriate and adequate care, prevent human suffering, and reduce the personal and societal burden resulting from trauma. In addition, the statute acknowledges prevention as a powerful weapon in the fight against trauma and calls for the integration of injury prevention programs in the development of the trauma system.

The statute also calls for a biennial plan to be made available to assure the orderly and systematic implementation of the trauma system. This document - the fourth biennial plan - provides the vision, direction, and key components fundamental to a trauma system and, together with each region's plans, outlines the specific actions needed to implement and improve the statewide trauma care system.

Finally, in fulfilling the mandates of this legislation, four major groups of participants have been assembled: The Department of Health's Office of Emergency Medical and Trauma Prevention, the governor-appointed Steering Committee on EMS and Trauma Care, the EMS and Trauma System Regions, and the EMS and Trauma Care Licensing and Certification Committee.

The Office of Emergency Medical and Trauma Prevention (EMTP) consists of four sections: Education, Training and Regional Support; Licensing and Certification; Prevention, Policy and Planning; and Trauma Designation, Registry and Quality Assurance. These sections provide leadership, direction, technical support, system assessment, and regulatory control.

The governor-appointed Steering Committee on EMS and Trauma Care consists of representatives from surgeons and physicians, hospitals, prehospital providers, firefighters, local health departments, consumers, and other affected groups. The Committee also utilizes eleven technical advisory committees (TACs) with over 150 members from various disciplines. The Steering Committee provides guidance and direction to the state office in its administration of the trauma system. A second advisory committee, the EMS and Trauma Care Licensing and Certification Committee (L&C), advises the state on administrative rules pertaining to prehospital provider licensing and certification. The L&C committee is also routinely used to provide advice on policy issues relating to licensing and certification.

There are eight EMS and Trauma Care Regions within Washington State. This component of the trauma system represents local and regional interests, and establishes the development of the trauma system as a grass roots effort. The eight Regional EMS and Trauma Care Councils are supported through contracts with the state EMTP office, and are charged with developing regional plans and regional patient care procedures,

conducting prevention and public education programs to address regional injury problems, providing EMS and trauma training program opportunities for prehospital providers and for designated trauma facility staff, providing advice to the state EMTP office on issues relating to the provision of EMS and trauma care in their respective regions.

The regional plans are the cornerstone in the development of the state's trauma system. These in-depth implementation guidelines and goals are included as separate volumes to this document. These plans are available upon request. They address issues pertaining to regional demographics, education and training, communication, quality assurance, prevention and public education, prehospital services, acute and rehabilitation facilities, and patient care procedures. In short, they address four fundamental questions:

- *What are the causes of trauma and how can they be prevented?*
- *Is the region's trauma care system readily accessible?*
- *Is the system efficient and effective?*
- *What is needed to improve the system?*

A second major component of the trauma system has been the formation, adoption, and revision of Washington Administrative Codes (WACs), the "rules" for implementing the EMS/Trauma System legislation. The broad public participatory process used in developing these WACs generated understanding and support from hospitals and health care professionals. The most recent revision of the WAC occurred in calendar year 2000. The WACs are available upon request from the Department of Health. The actual operational and clinical components of the trauma system fall into five major groups: Public Information and Prevention, Human Resources, Prehospital Care, Definitive Care, and Evaluation. Below are brief descriptions of each of these components:

Public Information and Prevention includes the coordination with other public agencies, and the injury prevention program. Particular emphasis has been placed on coordination and injury prevention programs.

The injury prevention program provides technical assistance, training, resources, and funding to regional injury prevention activities as well as staff support for various statewide program efforts. Programs with far-reaching impact include *Tread to Safety* fall prevention; bicycle helmet and safety programs; *Reach Out With Hope* suicide awareness; *Sober Roadways for Washington*; and other DUI prevention and childhood and adolescent drowning prevention.

Human Resources include prehospital workforce resources, education and training, standards for hospital and health personnel, continuing medical education, and trauma education and preparation. There are nearly 17,000 prehospital personnel currently certified with the state of Washington. With slightly over half (51%) of the personnel being volunteers, assuring the availability of human resources is a considerable challenge. Additionally, the provision of appropriate levels of accessible training, particularly in rural areas, has been a major focus. Another significant activity is promoting appropriate training for all health personnel, including physicians and nurses, with respect to emergency medicine and trauma care.

Prehospital Care includes communications systems, EMS medical direction, patient care protocols, patient care procedures, and triage and transport. Probably the most readily recognized component of the EMS and trauma communications system is the 9-1-1 services. Currently all counties in Washington State have Enhanced 9-1-1 service. This system will automatically identify the address of any 9-1-1 call received.

One of the more significant aspects of trauma care is the appropriate triaging of trauma patients. Thus, the development, adoption, and use of the trauma triage tool by prehospital providers are seen as a major accomplishment (see Appendix A).

In addition, verification of prehospital providers is being accomplished. Of over 500 prehospital agencies licensed in Washington State, more than ninety percent have achieved verification. Verification assures that besides meeting the basic EMS standards, prehospital providers are capable of providing the highest level of trauma care. This process assures minimum response times, additional trauma-specific equipment, trauma life support training for all personnel, and capabilities for intermediate and advanced life support care.

Definitive Care includes the medical care, outreach, and quality improvement provided by the network of designated acute and pediatric trauma services and trauma rehabilitation services across the state. Trauma services are typically designated as a Level I, II or III, with Level I facilities offering the highest level of trauma care. The standards for these differing levels have been developed by the American College of Surgeons and modified by the Governor's Steering Committee. Because of the large proportion of rural areas in the state, Washington has also developed standards for Level IV and V trauma service. The advent of these levels, together with specific outreach efforts, facilitates inclusion of the more rural providers into the statewide trauma system.

The process for designation originates in each region. The Regional Councils identify recommended numbers, levels, and distribution of trauma services needed based on patient volumes, facilities commitment to trauma care, and existing resources. DOH, then, has final responsibility for determining the minimum and maximum number of designated facilities needed at each level. Once the needs have been determined and adopted in the approved regional and state plans, a comprehensive Application for Designation is sent to all potential trauma care providers. Following a review of each provider's proposal to assure the minimum standards have been met, the applicants receive an on-site review by a team of trauma experts. Based upon that team's findings, the most appropriate facilities are designated.

Besides establishing appropriate standards of care, equipment, and personnel, designation establishes the criteria for appropriate transfers of patients and diversion guidelines.

Medical rehabilitation is integrated into the trauma system. Like the levels IV and V, this integration of rehabilitative services is an innovation of the Washington State system. Designation of trauma rehabilitation services began in 1997 and was completed by November of 1998. Rehabilitation facilities are designated as Levels I, II, and III for

adult and/or pediatric care. The process for designation is similar to that of the acute care facilities.

Evaluation, the last component, includes data collection and system assessment. The trauma registry is designed to provide comprehensive information on all trauma patients from the moment a first responder arrives on the scene, through their acute and rehabilitative care. The linkage of patient records across the continuum of care is another unique and innovative aspect of Washington's system. Quality assurance and improvement programs under the auspices of the Level I, II and III facilities in each region have been established; the registry has been designed to support their activities. In addition, the state office provides analysis of the system as a whole.

In 1990, the Steering Committee on EMS and Trauma Care issued a plan to the state Legislature for a statewide trauma system. In that report were approximately sixty recommended goals and objectives. These goals and objectives were used as the guidelines for the initial trauma system development and the basis of the Trauma Care Act of 1990. These are presented later in this document and include summary updates.

In the fall of 1999 the Steering Committee met with state EMTP staff again to review the goals and objectives of the trauma system and establish areas of focus. The group established eight areas, which are listed in order of importance. Each member of the group was asked to rank the topics with 1 being most important. A compilation of the rankings determined the overall priority order. The results are as follows: (1) Data, (2) Quality Improvement, (3) Cardiac, (4) Funding, (5) Prehospital, (6) Regional, (7) Disaster, and (8) Dispatch. These and other issues will help guide the EMTP office efforts in the future.

Introduction

In 1988, the Washington State Legislature directed the Department of Health to conduct an extensive study of trauma care in the state. Based on the results of this study (*1990 Washington State Trauma Project: A Report to the State Legislature*), broad enabling legislation for trauma care system development was adopted in 1990. This legislation defined trauma as "*a major single or multi-system injury requiring immediate medical or surgical intervention or treatment to prevent death or permanent disability,*" and stated that:

- Trauma is a severe health problem in the state of Washington and a major cause of death;
- Presently, trauma care is very limited in many parts of the state, particularly in rural areas where there is a growing danger that some communities may be left without adequate emergency medical care; and
- It is in the best interest of the citizens of Washington State to establish an efficient and well-coordinated statewide Emergency Medical Services and Trauma Care system.

Such a system, the legislation declared, could make the delivery of trauma care more cost effective, minimize the incidence of inappropriate or inadequate trauma care, prevent human suffering, and reduce the personal and societal burden resulting from trauma.

The statute also called for a biennial plan to be made available to assure the orderly and systematic implementation of the trauma system. This document provides the vision, goals, and key components fundamental to a trauma system, and together with each region's plans, outlines the specific actions needed to implement a statewide trauma care system.

The Legislature outlined the goals and objectives of this Emergency Medical Services and Trauma Care system. They include:

- Pursue trauma prevention activities to decrease the incidence of trauma;
- Provide optimal care for the trauma victim;
- Prevent unnecessary death and disability from trauma and emergency illness; and
- Contain costs of trauma care and trauma system implementation.

Moreover, the state Legislature acknowledged that in other parts of the United States where trauma care systems had failed and trauma care centers had been closed, there

was a direct relationship between such failures and closures and lack of commitment to fair and equitable reimbursement. Therefore, *the legislation recognizes that fair and equitable reimbursement is fundamental to the system's success.*

The legislation also established the *Governor-Appointed Steering Committee on EMS and Trauma Systems Care*. The Steering Committee provides a broad-based representation of constituents key to trauma care and system development.

The legislation also called for the establishment and funding of *EMS & Trauma Care Regional Councils*. These regional councils identify their area's EMS and trauma care-related needs, and develop regional-specific strategies for addressing those needs. Eight regional EMS and Trauma Care Councils have been established across Washington State.

EMS & Trauma System Regions



A statewide planning process that calls for the development of biennial region-specific plans from each of the EMS & Trauma Systems Planning Areas (Regions) is supported by DOH, Office of Emergency Medical & Trauma Prevention.

These plans identify regional:

- Objectives and priorities;
- Resources and resource needs; and
- Implementation strategies for establishing a system that meets those objectives and needs.

The regional plans are approved by the Department of Health and their Executive Summaries are included in Appendix E. These regional plans are all consistent in their purpose and intent. They plan and implement a regional EMS and trauma care system that becomes one part of the statewide EMS and trauma care system, and the state EMS and trauma care plan.

This state plan serves as the blueprint for the statewide EMS and trauma system. It provides a broad overview of the purposes and components of a trauma care system, updates the status of the recommendations that were developed in the 1990 report to the Legislature, and outlines key areas for future system focus and development.

The state plan is divided into two broad categories, each with several sub-categories:

Administrative Components

- *Leadership*
- *System Development*
- *Legislation*
- *Finance*

Operational and Clinical Components

- *Public Information/Education and Prevention*
- *Human Resources*
- *Prehospital Care*
- *Definitive Care*
- *Evaluation*

In addition, the main text of this plan is followed by:

- a listing of the 1990 recommendations and a summary of the activities to-date,
- a description of activities related to directives of RCW 70.168 for the OEMTP,
- a summary of the Min/Max numbers approved for each region, and
- the executive summaries of each of the Regional Plans.

Finally, this state plan is updated every two years and made available to the state Board of Health for consideration and incorporation in their biennial state health report.

Administrative Components

I. Leadership

State Authority and Responsibilities

The Department of Health established the Office of Emergency Medical & Trauma Prevention in 1990. The office consists of four sections:

- Education, Training and Regional Support;
- Licensing and Certification;
- Prevention, Policy, and Planning; and
- Trauma Designation, Registry, and Quality Assurance.

These sections are responsible for the following:

Education, Training & Regional Support - Provides leadership and direction to support the implementation of the EMS and Trauma System at the regional and local levels and to meet the medical education needs of EMS caregivers. The section works actively with the state EMS Education Committee, eight regional EMS and Trauma Care (EMS/TC) Councils, and many other health care organizations to bring quality training to EMS responders, and to bring EMS and trauma systems development assistance to each region. Specifically, this section:

- Establishes statewide standards for conducting all EMS initial and continuing education and training programs;
- Provides technical assistance and DOH policy interpretation for eight regional EMS/TC Councils. These areas involve system development and implementation, including the development of regional EMS plans, integrating internal and external policy, program, and administrative issues;
- Provides technical assistance to 39 local EMS/Trauma Care Councils and 15 County EMS offices, EMS provider agencies, emergency and communications centers, and others, as required;
- Reviews, evaluates, and approves current EMS education and training programs;
- Reviews, evaluates, and approves Senior EMS Instructors and BLS Evaluators;
- Coordinates the annual EMS Instructor Workshop;
- Develops and implements statewide training manuals, curricula and other educational materials;
- Provides technical assistance in regional system development and implementation activities;
- Distributes funds for initial EMS training and the Ongoing Training and Evaluation Program at the basic life support level;
- Develops and monitors contracts for EMS education and training programs for the eight regions;

- In conjunction with the L&C Section, presents Medical Program Director Workshops;
- Provides technical assistance to appointed and elected local, regional, and state officials regarding state/regional EMS/TC systems;
- Provides technical assistance in the development of Washington State EMS/TC Plan;
- Conducts biennial regional EMS/TC Council plan review process;
- Provides technical assistance to the regions, MPDs, and licensed/verified services in the development and monitoring revisions of Regional Patient Care Procedures and County Operating Procedures;
- Provides in-depth technical assistance to EMS/TC provider agencies in the implementation of the Washington State Trauma Triage Tool at the county and local levels;
- Provides staff support and technical assistance to the Education Committee
- Coordinates statewide “EMS-No CPR” program for EMS personnel and the citizens of Washington State;
- Represents EMS and trauma system issues to local elected and appointed government officials regarding the state EMS/TC system;
- Integrate emergency/disaster preparedness activities at federal and state level into regional and local EMS and trauma system planning, implementation, and operational activities;
- Provides staff support for the Steering Committee Disaster TAC regarding the formulation and implementation of emergency/disaster preparedness policies concerning the state and regional EMS and Trauma Systems; and
- Coordinates, develops, and maintains the office presence on intranet and Internet web sites.

Licensing & Certification - Develops and enforces rules, regulations and standards for licensing and inspecting of prehospital EMS/TC services and the certification of personnel providing emergency medical care. Specifically, this section:

- Staffs and consults with the EMS/TC Licensing and Certification Committee;
- In conjunction with the state L&C Committee, prescribes minimum standards defining the duties and responsibilities of County Medical Program Directors (MPD);
- In conjunction with the state L&C Committee, approves County MPDs and their physician delegates, manages MPD contracts, advises MPDs on the performance of their duties and responsibilities, and oversees the MPD QI program;
- Develops and administers examination standards for certification and recertification of EMS/TC personnel;
- Certifies and recertifies EMS personnel upon proof of continuing satisfactory performance, education and testing;

- Issues ambulance, aid service and vehicle licenses to services who meet minimum standards;
- Conducts inspections of licensed services;
- Investigates complaints against agencies or individuals;
- Administers corrective action as needed for certified EMS personnel and licensed services;
- Verifies capabilities of licensed agencies to provide trauma care services;
- Assists in the development and presentation of MPD Workshops; and
- Coordinates with the E-911 office on communications with emphasis on Emergency Medical Dispatch.

Prevention, Policy and Planning – Manages and implements four primary functions of the Washington State EMS and Trauma System: a) statewide injury prevention program, b) Trauma Care Fund program, c) EMS and Trauma System planning and evaluation, and d) policy, rules, and legislation. Specifically, this section:

- Manages the Trauma Care Fund program;
- Provides technical assistance and support to Regional EMS/TC Councils in developing community injury prevention and public education programs;
- Coordinates statewide Injury Prevention programs;
- Functions as a clearinghouse and resource for legislation, rules and policies;
- Manages the Regulatory Improvement program including the development, review, and amendment of EMS and Trauma rules using a process which involves public input;
- Coordinates the development and implementation of department-proposed legislation and regulations;
- Conducts research and analysis on EMS education, licensing and certification, injury prevention and related public health issues;
- Conducts research and analysis on legal issues and provides recommendations for program policies;
- Develops the State EMS and Trauma System Plan;
- Develops Office annual report; and
- Coordinates the annual EMS and Trauma Legislative Day.

Trauma Designation, Registry, and Quality Improvement – This section facilitates the development of a statewide system for efficient and effective delivery of trauma services. In addition, this section:

- Manages the process for designating health care facilities to provide trauma services to people involved in major trauma incidents;
- Provides technical assistance and consultation to trauma services and other health care facilities when applying for designation to provide trauma services;
- Conducts on-site reviews of hospitals applying for designation as a Level I, II, III and/or Pediatric Level I, II, or III trauma service(s);
- Monitors designated acute and rehabilitation trauma services for compliance with state standards to assure optimal provision of care for the major trauma patient;

- Provides ongoing technical assistance and consultation to hospitals on the continued improvement of their trauma services;
- Provides leadership and technical assistance in the development, management, and coordination of Regional trauma quality assurance and improvement activities;
- Provides technical assistance in the development, implementation and maintenance of a statewide trauma care data collection system (trauma registry), thus functioning as an information clearinghouse and resource center for trauma data;
- Provides leadership and technical assistance in establishing information systems which allow designated trauma services, verified prehospital providers, and regional quality assurance programs to assess their quality of trauma care and trauma patient outcomes;
- Monitors and analyzes the efficiency, effectiveness, costs, and needs of the Emergency Medical and Trauma Care System;
- Provides technical support to Regional EMS and Trauma Care Councils for planning and need identification;
- Administers the state Poison Control Certification Program; and
- Promotes the special needs of pediatric trauma patients through management of the EMS-C federal grant.

Advisory Committees

Two statewide committees have been established by statute to provide direction and oversight to the development and functioning of the state's EMS and trauma care system.

The EMS and Trauma Care Steering Committee consists of members appointed by the Governor, with statutory responsibility to provide guidance and direction to the state in its development of the trauma system, to review and to comment on all new rules, policies, state and regional plans or procedures proposed by DOH, and to review biennially all existing rules, policies and procedures.

The Steering Committee consists of representatives from the American College of Surgeons Committee on Trauma, American College of Emergency Physicians, American Academy of Pediatrics, as well as representatives from the State Patrol, Medical Association, Emergency Nurses Association, Continual Care Nurses Association, Hospital Association, Ambulance Association, Council of Firefighters, Association of Fire Chiefs, Society of Anesthesiologists, Association of Rehabilitation Facilities, Association of Local Public Health Officials, Fire Commissioners Association, Washington Chapter of American Trauma Society, and consumers.

The Steering Committee also incorporates eleven Technical Advisory Committees (TACs), with over 150 members from various disciplines.

The TACs are:

- ***Cost Reimbursement***
- ***Data***
- ***Disaster***
- ***Emergency Cardiac***
- ***Hospital***
- ***Injury Prevention and Public Education***
- ***Pediatric***
- ***Prehospital***
- ***Public Policy***
- ***Regional Advisory Committee***
- ***Resource Allocation***

TAC membership is made up of a number of volunteers who wish to participate in the topic area for that TAC. The TAC Chair and Vice Chair, however, must be current members of the Steering Committee. Volunteers to the committee apply for membership through the EMTP office and are appointed to the committee by the Steering Committee Chair after approval from the Chair and the EMTP office.

The other legislatively mandated oversight group, the ***Licensing and Certification (L&C) Committee*** has 11 members appointed by the Department of Health. The L&C Committee reviews all administrative rules pertaining to licensing and certification of EMS providers, and advises the department in other matters as requested.

There are additional non-legislated committees that have been providing valuable assistance and technical expertise for many years:

1. **The EMS Standards Committee of the Washington State Medical Association (WSMA)** is instrumental in recommending standards governing prehospital patient care, provider training, medical control, and similar medical/administrative matters.
2. **The EMS Education Committee**, with membership from each Region, assists DOH by recommending standards for prehospital provider education, instructor qualifications, curriculum development, and training and evaluation methodologies.
3. **The Trauma Nurse Network**, made up of the state's trauma service coordinators and trauma registrars, meets regularly to collaborate and share issues and strategies in the development of their trauma services. This group assists DOH in the review and implementation of standards, the trauma registry, and educational needs.

4. **The Trauma Medical Directors**, in collaboration with the Washington State Committee on Trauma of the American College of Surgeons, meet to review submitted comments on proposed clinical care guidelines, revise guidelines, and then submit the guidelines to the Steering Committee for implementation. The members also collaborate in the leadership of trauma services.

Local Emergency Medical Services and Trauma Care Councils

Each of Washington's 39 counties may create a local EMS/TC Council. Local councils are grouped into eight Regional EMS/TC Councils. Membership of both county and regional councils is intended to reflect a balance of hospital and prehospital trauma care and EMS providers, local elected officials, consumers, local law enforcement representatives and local government agencies involved in the delivery of EMS/TC services.

Regional Councils - Members are appointed by DOH based upon recommendations from the local councils. The table on the next page shows the current membership presentation.

Regional councils have two mandated responsibilities:

- 1) **Planning** - Regional Councils have broad authority to create plans for the development and delivery of EMS/TC. These efforts are supported by DOH through contracts. Regional Plans are submitted to the state biennially, but may be modified more often as needed.

Upon acceptance by DOH, the Regional Plan becomes part of the blueprint for statewide system implementation, supplementing the statute, state administrative code, and the State EMS/TC Plan and Regional Patient Care Procedures.

- 2) **Patient Care Procedures** - Regional Councils also have a statutory responsibility to adopt Patient Care Procedures (PCPs), defined as "operating guidelines that identify the level of medical care personnel to be dispatched to an emergency scene, procedures for triage of patients, the level of trauma care facility to first receive the patient, and the name and location of other trauma facilities to receive the patient should an interfacility transfer be necessary." Patient Care Procedures are developed in consultation with local EMS/TC Councils, emergency communication centers, the MPDs and others involved in the EMS/TC system, and must be consistent with minimum standards established by DOH, however, the Steering Committee has allowed more stringent standards for response times to be established. DOH continues to monitor the PCPs as the regional and county EMS and trauma systems evolve and mature. Additionally, the Education, Training, and Regional Support section continues to work with the regions to identify PCPs in need of greater specificity.

	Regional Council Membership								
Category	C	E	N	NC	NW	SC	SW	W	Total
Ambulance Assn		1	1					1	3
"At-Large"			5				1		6
Consumer	1	2	5	2	1	1	2	4	18
Emergency Physician		2						1	3
Hospital	10	9	5	4	5	5	4	6	48
Law Enforcement	1	1	1	2	1	1	1	2	10
Local EMS Council		10			10	5		4	29
Local Elected Official	1	1	5	2	1	1	2	2	15
Local Gov't Agency		1		3		5	2	4	15
Medical Program Director			1	3	3	1	2	4	14
Prehospital	9		5	8	5	5	4	7	43
Trauma Surgeon								2	2
Other	9	5	1		5	6	2	14	42
Total:	31	32	29	24	31	30	20	51	248

County Operating Procedures - Regional PCPs, a guide and blueprint for regional EMS and trauma system operation, may be further defined within regionally-approved and county-specific appendices to the regional PCPs. These appendices are called County Operating Procedures (COPs) and serve to provide local definition and specificity to the approved regional PCPs, and to the use of the Washington State Trauma Triage Tool by the county system. For the process and timelines followed for DOH review and approval of regional PCPs or county COPs, please reference the Regional Support Activities Handbook (Appendix H)

Local Councils - The primary legal responsibilities of a local council, as defined by RCW and WAC, are to review, evaluate, and make recommendations to the regional councils with regard to the provision of emergency medical and trauma care and on plans for such care. They will further make recommendations to the DOH regarding senior EMS instructors, initial training programs, and certification and termination of MPDs.

Many Local Councils have been created by county ordinances, which often broadens their responsibilities. Local Councils often serve as the "operational" branch of the EMS/Trauma System in many aspects except direct provision of patient care. Working closely with the County Medical Program Directors, many are actively involved in initial and continuing training of personnel. Some also sponsor public education,

EMS/TC awareness, and prevention programs. As directed by RCW and WAC, membership should include representatives from hospital and prehospital trauma care and EMS providers, physicians, local government agencies, local elected officials, consumers, local law enforcement officials, and prevention specialists.

Local Government - County governments are empowered to enact local ordinances, which establish local authority over many aspects of the EMS system. Any such local regulations must meet or exceed DOH standards. Although a relatively small number of counties have chosen this option, they are the most populous, so that a significant proportion of the population is affected. The state EMTP Office encourages and assists local government participation in the organization of the emergency care system.

II. System Development

EMS/Trauma Systems planning is a process that begins at the local level and proceeds through the counties and regions to the state office - an approach designed to build consensus along the way. Regional plans form the foundation for the statewide system. Once they are reviewed, amended and adopted by the regional councils, reviewed by the Steering Committee, and approved by DOH, the regional plans become the overall guide for more detailed operational planning at the local level.

The regional plans include the following components:

- Demographics;
- Local system(s) history;
- Education and training;
- Communications assessment;
- Prevention and public education activities;
- Prehospital services (including current and needed services by location and levels);
- Acute and rehabilitative care facilities (including recommended number and levels of designated facilities);
- Prehospital triage criteria and inter-hospital transfer procedures;
- Financial planning; and
- Patient Care Procedures

The regional plans can be envisioned as addressing four questions fundamental to a Trauma Care System:

1. *What are the causes of trauma in the region and how can they be prevented?*
2. *Once an injury occurs, is the region's trauma care system readily and efficiently accessible?*
3. *Once activated, is the system efficient and effective (i.e., the right personnel and appropriate equipment are arriving at the scene in a timely manner, the treatments are correct, the victims are transported to the appropriate level hospital, etc.)?*
4. *What information/data is required to continuously evaluate and improve the system?*

The system planning and implementation process follows a local approach, with the state office providing support and technical assistance to regional councils, who in turn "subcontract" with counties and/or local agencies to put programs into operation. This allows the state to provide general and overall guidance through grants and contracts, and keeps local, detailed and unique aspects of implementation in the hands of the local and regional councils.

III. Legislation

Legislative Activities

The laws affecting EMS/Trauma are in four separate statutes:

- Chapter 18.71 Revised Code of Washington (RCW) sets standards and regulates certification of ***Advanced Life Support (ALS) personnel*** and defines the duties and responsibilities of the ***Medical Program Directors (MPDs)***. Amendments in 1995 to RCW 18.71 created the Intermediate Life Support (ILS) Technician, a level of certification developed to extend critical life-saving skills (including, for the first time in Washington, limited medications) to areas of the state that cannot support or maintain full paramedic service.
- Chapter 18.73 RCW sets standards and regulates certification of ***Basic Life Support (BLS) personnel***, and for ***licensure of prehospital services and vehicles***;
- Chapter 18.76 RCW establishes ***Poison Information Centers***; and,
- Chapter 70.168 RCW, the ***Washington EMS/Trauma Act of 1990***, creates a system for trauma care, including prevention, regional planning, authority of the state, regional and county/local councils, medical control, designation of trauma services, verification of prehospital trauma services (including BLS, ILS and ALS levels) trauma care registry, regional quality assurance programs and trauma care reimbursement.

Chapters 18.71 and 18.73 RCW have been in place since federal EMS initiatives in the 1970's. RCW 18.76 was passed in 1980 and was amended significantly in 1992. The EMS/Trauma Act, was enacted in 1990 after extensive community and provider input. This legislation addresses trauma from the perspective of the citizen/patient, calling for interventions throughout the continuum of care including prevention, prehospital, acute hospital, and rehabilitation.

In 1997, the Legislature passed the Trauma Care Fund Act providing funds for trauma care reimbursement to verified prehospital services, designated trauma care facilities (both acute and rehabilitation), and to physicians and other clinicians caring for patients in designated trauma facilities. This fund is supported through an administrative fee of \$6.50 for the purchase or lease of a new or used vehicle and a surcharge on motor vehicle moving violations of \$5.00 per violation. The legislation specifies that 25 percent of the fund be provided locally which can include in-kind contributions. The legislation further directs the DOH to maximize federal funding opportunities. This is being accomplished by working jointly with the Department of Social and Health Services (DSHS), Medical Assistance Administration (MAA) through a process of enhanced reimbursements for trauma care provided to approved DSHS Medicaid clients.

The funds are distributed in a number of ways. Prehospital providers verified by DOH to provide trauma care receive money through annual participation grants and biennial needs grants. Hospitals designated by DOH to provide acute trauma care receive annual participation grants and enhanced reimbursements from the MAA. Physicians providing trauma care at designated trauma services receive funds through enhanced MAA reimbursements. And finally, rehabilitation facilities designated by DOH to provide trauma rehabilitation care receive annual participation grants. The state EMTP office administers the flow of money and monitors fund activities to ensure appropriate utilization and access. In December 1998 the office submitted the report, *Trauma Care Reimbursement, The 1998 Report on Funding Trauma Care Services* to the Washington State Legislature as mandated by the legislation.

Emergency Medical Personnel – Futile Treatment and Natural Death Directives, RCW 43.70.480 – Since 1995, the state EMTP office has had in place guidelines for how emergency medical personnel should respond to individuals who have a signed directive for end of life care. Additionally, the office developed the EMS No CPR medical directive to EMS personnel. This simple form is used statewide in long-term care settings to further support a person's end of life care wishes.

The Kristine Kastner Act---Emergency Administration of Epinephrine, RCW 18.73.250 - Since January 1, 2000 all of the state's ambulance and aid services have made available epinephrine to their emergency medical technicians for the treatment of severe allergic reaction. Training standards and protocols developed by the EMTP office help ensure the safe administration of epinephrine by EMTs. Current findings indicate favorable outcomes in a majority of patients who have received epinephrine administered by EMTs. Quarterly reports submitted to the EMTP office by medical program directors help the office monitor the continued safety and effectiveness of epinephrine administration by EMTs.

Public Access Defibrillation-Semiautomatic external defibrillator, RCW 70.54.310 - In 1998, the laws of the state of Washington were amended to permit the use of semiautomatic external defibrillators (AEDs) by lay providers. This initiative to place AEDs in public settings is widely known throughout the state as, Public Access Defibrillation (PAD). The EMTP office has the authority to review and approve all PAD courses. To date there are nine DOH approved PAD programs in Washington. A listing of those approved programs is located on our website at www.doh.wa.gov/hsqa/emtp.

Administrative Rules

Washington Administrative Codes (WAC) are the "rules" for implementing EMS and Trauma legislation. The current WACs are available by request.

In 1996 the office began a comprehensive review of their trauma system rules (Washington Administrative Code, chapter 246-976). This review was initiated by both its own WAC requirement and by the Regulatory Fairness Act of 1995. In 1997 the Washington State Governor issued Executive Order 97-02, Regulatory Improvement, to help govern how regulations are to be reviewed. The work that the office started in 1996 had not specifically and formally addressed the seven criteria outlined in the Governor's Executive Order, however, the intent of the Order was in agreement with the philosophy and history of the EMTP office's rule making.

The office proceeded to review and revise the WAC by related sections rather than as a whole so as to more efficiently complete the reviews. The department decided to use a negotiated rule-making process when reviewing and revising the rules. This process depends on significant involvement of individuals and organizations affected by the rules, working closely with the staff to develop the least intrusive rules that will support the standards of the system.

In March 1998 the revised Trauma Service Designation rules (WAC 246-976-485 through –890) went into effect, as did the new Emergency Medical Services and Trauma Care Systems Trust Account rules (WAC 246-976-935).

In April 2000 the remainder of the trauma system rules, (WAC 246-976-001 through –450 and –910 through –990, except –935), were amended and went into effect in May 2000. These rules were revised to update: 1) educational changes in curricula, 2) certification requirements, 3) trauma registry and system administration requirements and responsibilities, and 4) the structure, grammar, and organization of the WAC, while removing unnecessary repetition.

At this time the comprehensive review of the trauma system rules has been completed. As stated in the WAC, rules, policies, and standards will be reviewed at least every four years.

Policies & Procedures

Department of Health policies and procedures for certification, licensure, and training describe the specific processes for those standard activities. In addition, detailed operational policies and procedures for local delivery of EMS and Trauma care are contained in Regional Patient Care Procedures, Regional Plans, County Medical Program Director Patient Care Protocols, and local ordinances.

IV. Finance

Trauma System Administrative Costs

The costs for EMS & Trauma Systems are often divided into *administrative* (those incurred in the day-to-day system process), *overhead costs* (those which are attributable to compliance with the requirements of Level I, II, III, IV or V facilities and the requirements of licensed and verified prehospital services), and *direct patient-care costs*. However because these EMS & Trauma Systems costs are so entwined, it is difficult to determine each of them independent of the others.

Funding for administration of the EMS Trauma System (the Office of Emergency Medical and Trauma Prevention and grants to the Trauma Care Regions) comes from the state's General Fund.

The EMTP office contracts with each of the eight Emergency Medical and Trauma Regions to support planning, prevention, training and other related activities. These grants usually require matching funds.

Trauma System Provider and Health Care Facility Costs

Prehospital - Prehospital care providers in Washington State range from the small rural fire departments providing a first response "aid" service with an all-volunteer staff, to the large metropolitan fire departments and ambulance services, employing full-time, paid paramedics and emergency medical technicians. Consequently, costs for prehospital service cover a vast array of participants and services.

The cost of aid and ambulance equipment is often a major problem, particularly for the smaller agencies, and especially for volunteer agencies. Besides assuring that basic life support equipment needs are met, these agencies must also acquire communications equipment to assure access to on-line medical control and coordination amongst providers. Operational costs are not a program cost, but startup assistance has been available to establish first responder services in unserved areas. DOH grant funds through Regional Councils are available for funding assistance. In addition, the 1997 Trauma Care Fund Act allows for prehospital services to receive Participation and Needs Grants.

In some rural areas, advanced life support helicopter service, with paramedics or nurses, may be essential to ensure rapid transport to distant designated trauma services from either the incident scene or a designated Level IV or V trauma care facility. However, helicopter service costs an estimated \$1 million per year in staffing, operations, and helicopter rental or maintenance. In rural areas such as the southeast corner of our state, trauma patient volumes may not support such a service. Moreover, second- and third-party payers rarely provide adequate reimbursement for helicopter service.

Health Care Facilities - The establishment of a "Trauma Service" requires an investment in professional staffing, particularly specialized physicians, surgeons, dedicated operating room and ancillary backup staff, and a trauma nurse coordinator. Designated trauma services are also required to participate in the state's trauma registry and regional quality assurance programs. Level I and II services must have a community outreach/ prevention component. The costs for these on-going operational functions vary by health care facility and depend on the level of trauma service the facility is providing.

According to the 1990 report to the Legislature, typical start-up costs for designated Level I, II or III trauma care services were estimated to run from a low of \$335,000 for a Level III, to \$755,000 for a Level I trauma care service (when adjusted for inflation, these costs would be equivalent to a low of \$410,000 to a high of \$926,000 in year 2000 dollars). These estimates are based upon Washington State trauma service standards which, when compared to the American College of Surgeons' standards, are less rigorous and provide for much more "realistic" staffing requirements. In a Level II trauma care service, for instance, Washington State standards require that a surgeon be on call and available to meet the patient in the emergency department within 20 minutes of notification; the American College of Surgeons standards require 24 hour in-house surgical coverage. The Washington State standards meet the intent of immediate surgical availability at a greatly reduced cost to the trauma service, and to the system.

System Costs - Implementation and administration of trauma systems increase start-up and ongoing costs. These costs include supporting the process of regional planning, regional quality assurance and quality improvement, designation of health care facilities, managing systems analysis and development, managing data, regulatory activities, and education and prevention programs.

State-supported training and grant funds for prehospital and health care facility providers is an ongoing need, particularly in our state's rural areas. The 1997 Trauma Care Fund has begun to support some of these needs. The fund allows for prehospital services to receive needs and participation grants.

Communication systems continue to be an essential component of the Emergency Medical and Trauma Care System. However, constant technological changes make communication system oversight an ongoing challenge.

A trauma registry is necessary for system implementation and as a tool for system evaluation, quality assurance, quality improvement, and decisions regarding future trauma system development.

Regional quality assurance and improvement programs are necessary to evaluate the effectiveness of the entire trauma care system - prevention through rehabilitation. Grants have been awarded to each of the eight regions to help establish these essential programs.

These are genuine, ongoing costs of an effective EMS and Trauma System and must continue to be supported.

Uncompensated and Under-Compensated Costs - Costs for uncompensated and under-compensated trauma care continues to be a problem in most areas of the United States. Results from the 1992 Arthur Anderson study on *Uncompensated and Under-compensated-care In Washington State* were consistent with the national experience.

The health care delivery system in Washington State is changing dramatically. New partnerships are being formed between insurers and health care providers in an attempt to manage care and costs.

In 1996, legislation was initiated that established a fund in the amount of \$9.2 million per biennium (4.6 annually), to provide improved reimbursement for Medically Indigent (MI) and General Assistance Unemployable (GAU) major trauma patients who are treated in hospitals and health care facilities designated as trauma care services by DOH. In 1997 this fund was replaced with the Trauma Care Fund, and 9.2 million of this new fund was allotted to Department of Social and Health Services (DSHS) for hospital reimbursement. These funds have been managed and distributed by the DSHS Medical Assistance Administration in Olympia Washington.

In an attempt to further meet the 1990 recommendation that “fair and equitable reimbursement should be provided for trauma care and system overhead costs incurred by all participating providers,” the state Legislature, in 1997, passed the Trauma Care Fund Act. As a result, grant funds are made available through DOH to providers who have made a commitment and respond to patients who meet the major trauma criteria (as defined in RCW 70.168). In addition, funds are distributed on a fee-for-service basis (through DSHS) and will go for those patients identified as major trauma patients.

This fund is supported through a vehicle license administrative fee of \$6.50 (\$4.00 is allocated to the fund and \$2.50 goes to the auto dealer to cover administrative costs) and a surcharge on moving violations of \$5.00 per violation. These measures took effect in January 1998. The fund requires 25% local matching funds. Entities eligible to receive funds include:

- EMS agencies verified to provide trauma services;
- Designated trauma services;
- Physicians and other health care providers who are active members of the trauma service team at a designated facility; and
- Trauma rehabilitation services.

This revenue source generates \$24 million in state funds and up to \$8 million is generated through federal match per biennium. The distribution of funds has been designed to match the distribution of uncompensated and under-compensated care costs

identified in the 1992 study by Arthur Anderson. The current distribution of funds is as follows and is subject to adjustment:

- Prehospital 5%
- Hospital 72%
- Physician 21%
- Rehabilitation 2%

Local EMS/Trauma System Funding

Implementation and administration of EMS/Trauma Systems incur ongoing costs. The funding available to meet system costs comes from many sources. These include local and county taxes, special emergency medical services levies, state appropriations, and second and third-party payer reimbursement.

In Washington, the maximum EMS levy amount is \$.50 per \$1,000 of property value. In 1999, legislation was passed expanding the length of EMS levies to a local choice of a six-year levy, a ten-year levy, or a permanent levy. In addition, other local tax options include a household tax, use of transit authority revenues, and a special annual emergency medical services levy. In many cases, fire districts and departments provide prehospital emergency medical services to their communities through fire district and department funds.

It is important to note, however, that these sources can be unstable since they are dependent upon local and sometimes federal economic conditions. Particular problems have been experienced by fire districts that must operate in competition with other junior taxing districts for a percentage of the available property taxes, and yet must stay within the percentage of property taxes for all taxing districts as set by law.

Moreover, the problem of local funding is particularly acute in rural communities where marginal Medicare reimbursements have made additional local funds inadequate. In fact, studies focusing on the problems of providing rural health care in Washington State brought about the passage of rural health legislation in 1989 to address this and other problems.

The establishment of the Emergency Medical Services and Trauma System in 1990 provided funding through the State's General Fund. These dollars continue to support community based training, designation management, communication systems development, prevention, regional and state planning, the trauma registry, and systems analysis.

Operational and Clinical Components

V. Public Information and Prevention

Public Information and Education

Cooperation and Coordination with Other Public Agencies - In addition to outreach and public education activities directed toward the general population, considerable effort has been made to educate, coordinate, and promote prevention and trauma system development with other appropriate governmental agencies.

To this end, the EMTP office has established formal and informal working relationships with numerous state, regional, and local agencies and organizations. Chief among these - at the state level - are the Washington Traffic Safety Commission (WTSC) and the Washington State Patrol (WSP).

Other key agencies and organizations with which the office works on a regular basis include:

- Transportation;
- Licensing;
- Social and Health Services;
- Liquor Control Board
- Superintendent of Public Instruction
- Harborview Injury Prevention and Research Center
- Children's Hospital and Regional Medical Center
- Designated Trauma Services
- Local Health Jurisdictions

Less formal but ongoing working relationships exist with the state office and local prehospital providers, hospitals, physicians, and associations.

Prevention

The state office:

- Provides consultation and technical assistance related to injury prevention to the EMS and Trauma regions and others as requested;
- Interacts with inter-state Region X Injury Prevention Workgroup Network; the Department of Health Injury Prevention Work Group; the Washington Traffic Safety Commission (WTSC) Interagency Alcohol Committee and Reduce Under Age Drinking Committee; the DOH Family Violence Prevention Workgroup; the Risk Watch State Advisory Board; the Statewide SAFE KIDS Coalition; and the multi-agency Media Literacy workgroup.
- Manages special projects: Drowning Prevention and Traffic Safety Project Manager;
- Provides training opportunities for injury prevention professionals and EMS and trauma providers;
- Provides a clearinghouse of information and resources to anyone who asks;

- Provides information, bill analysis, and testimony for injury prevention-related legislation.

The first major program advanced by the Injury Prevention and Public Education (IPPE) TAC was the *Sober Roadways for Washington* (SRFW) Campaign. SRFW has been adapted to be region-specific in some areas and is used in driver's education classes with mock crash events, on military bases, and with DUI impact panels.

In addition to the Injury Prevention activities coordinated by the EMTP office and the Regional Councils, each designated Level I, II and III trauma service is required to provide "a public education program addressing injury prevention". Many trauma services utilize the prevention programs to address specific patterns of injury unique to the community they serve. Trauma services are encouraged to utilize data from the trauma registry to identify common causes of injury in their community, tailor prevention programs to address the cause of injury and conduct follow-up to determine the effectiveness of the prevention program. A representative from the Trauma Nurse Network is on the IPPE TAC.

The state office provides support (both financial and technical) to the following regional activities, which are likely to have significant and lasting impact on the public.

Injury prevention professionals throughout the state work with and support prevention programs. In addition, regions are contracted with to conduct injury prevention programs based on their local/regional data. Programs include but are not limited to:

Drowning Prevention - In partnership with Children's Hospital and Regional Medical Center, a public awareness and education program that includes promotion of personal floatation devices among children, a preschool and middle school curricula, teen media campaign, and a fotonovela for Spanish-speaking families, among other efforts.

Bicycle Safety and Helmet Promotion Fitting Projects - Includes the purchase and free or low cost distribution and fitting of thousands of helmets as well the distribution of discount coupons and educational materials.

Bicycle Rodeos - Ongoing public demonstrations and practice by children of bicycling skills and safety intended to present helmets and other safe biking practices in a positive fashion.

Child Passenger Safety Programs - Include the purchase and distribution of child car seats and booster seats to local hospitals, community action programs and local health departments to provide loaners or giveaway's to economically disadvantaged families. Car seat checkups for correct installation are also provided.

Reach Out With Hope Suicide Awareness and Prevention - A program to train "gatekeepers" to provide resources and one-on-one help to suicidal individuals.

Resource library - A collection of materials related to injury prevention that can be loaned out to support community programs.

Sober Roadways for Washington (SRFW) - Prehospital providers started this campaign in 1992 with a slides/script presentation. With funding from the Washington Traffic Safety Commission, two videotapes were made about the health and medical consequences of driving impaired by alcohol. SRFW is still being presented in several regions in various forms: with DUI victims' panels, in conjunction with mock crashes, in treatment facilities, to drivers education classes, and sometimes as a stand-alone program.

Tread To Safety Fall Prevention For Seniors - Implemented through senior citizens centers, senior nutrition sites, and other groups.

Think First - A nationally recognized head and spinal cord injury prevention program aimed at children & youth.

Trauma Nurses Talk Tough - A safety program for K-12 presented by trauma nurses and paramedics including personal accounts of unsafe practices.

Injury Prevention Coalitions – Support of county Injury Prevention coalitions and/or grants to local agencies to operate local injury prevention programs.

Minors in Prevention- Puts court-ordered youth with minor alcohol and other drug related offenses together with a volunteer mentor through a rigorous program using the coroner's office, hospital emergency departments, ICUs, and rehabilitation services.

Regions continue to conduct injury programs tailored to their regional and local areas, as specified in each region's approved EMS & TC plan.

VI. Human Resources

Prehospital Workforce Resources

While the provision of personnel for prehospital service is a local responsibility, DOH recognizes that training in the skills required to provide good emergency care is a shared state and local obligation. The table below shows the number of certified prehospital personnel by region.

COUNT OF EMS PERSONNEL BY REGION									
REGION	SKILL LEVEL								TOTAL
	FR	EMT	IV	AW	IV/AW	ILS	ILS/AIR	PM	
C	107	3,379	1	0	0	0	0	4*	3,491
E	289	1,604	94	0	14	47	31	192	2,271
N	471	1,984	34	0	2	11	12	240	2,754
NC	150	533	65	0	2	5	22	48	825
NW	68	907	99	0	5	19	0	117	1,215
SC	351	1,009	43	3	12	23	7	175	1,623
SW	322	644	110	0	30	0	2	225	1,333
W	244	2,210	48	0	2	0	4	438	2,946
TOTAL	2,002	12,270	494	3	67	105	78	1,439	16,458

*All other paramedics certified by the University of Washington School of Medicine
<http://www.doh.wa.gov/hsqa/emtp/pub&rept/perstats.pdf>

The spectrum of certifications identified in the above table provides the state the ability to have whatever skills each community determines as necessary to meet patient care needs in their areas.

Prehospital Education and Training Preparation

Prehospital Initial Training - Initial education and training of First Responders, EMT-Basic, EMT Intermediate levels and EMT-Paramedic follows US Department of Transportation's (USDOT) National Standard Curricula with specific Washington State amendments.

Basic and Intermediate level training is offered primarily through licensed EMS provider agencies. Paramedic training is conducted through training agencies affiliated with post secondary educational agencies accredited through a Department-approved national accrediting agency.

Between EMT-Basic and EMT-Paramedic, Washington trains and certifies the following EMT-Intermediate Life Support levels: Intravenous (IV) Therapy Technicians, Airway Management Technicians and Intermediate Live Support (ILS) Technicians (Many individuals are certified as IV/Airway Management or ILS/Airway Technicians). The curricula for these courses are based on National DOT curricula appropriate to the certification level with specific Washington State amendments.

All education and training programs for initial training and certification are reviewed/approved by the Local EMS/TC Council, the County Medical Program Director, and the EMTP office. Except for National Registry Paramedic testing, written certification examinations are performed by DOH. Practical examinations are conducted locally under contract with DOH and follow DOH standards. All classes and exams are subject to random, unannounced audit by state staff. There are specific state standards for Senior EMT Instructors. The County Medical Program Director must approve all other course instructional personnel.

Eight training agencies are accredited by the Commission on Accreditation of Allied Health Programs (CAAHEP) to offer Paramedic training courses: the University of Washington School of Medicine, Central Washington University, Spokane Community College, Columbia Basin College, Tacoma Community College, Bellingham Fire Department, College of Emergency Services, and Tacoma Fire Department. One additional program is in the accreditation process at this time.

Specialized Training - Washington allows several categories of "specialized" training which may be adjuncts to various levels of certification. At this time, recognized additional skills include manual defibrillation, Pneumatic Anti-Shock Garment use, IV monitoring, Prolonged Prehospital Emergency Care (PPEC), and use of the pharyngotracheal lumen (PTL) airway by BLS personnel.

Prehospital Continuing Medical Education - Washington sets stringent continuing medical education (CME), skills maintenance, and recertification testing requirements for prehospital certified personnel. Annual CME requirements range from five hours for First Responders, 10 hours for EMTs to 50 hours for Paramedics. CME is delivered in a variety of ways: community colleges and other educational institutions; regional/community-based medical education programs; Local and Regional EMS and Trauma Care Councils (independently and/or under contract to DOH); by county governments that have adopted this role by local ordinance; fire and ambulance services, and local hospital programs.

Designated Level I and Level II Trauma Care Services are required by Washington Administrative Code (WAC) to offer outreach educational programs for prehospital personnel. As part of the facility's application for designation, they are asked to provide documentation that demonstrates their role in the provision of invasive and manipulative skills training for prehospital personnel. These programs are intended to operate in coordination with initial and continuing education courses supplied from other sources.

For providers in the more rural communities, CME will be less dependent on Levels I and II trauma hospital, and more a function of the regional community-based medical education program. This program supports a large proportion of the volunteer prehospital providers and is seen as an instrument for curbing the severe attrition of personnel in rural area. In cooperation with regional and local EMS and Trauma Care Councils, the regional community-based medical education program delivers high quality, hands-on continuing education to sites with an average of 4.8 miles from the rural EMS provider's residence.

Ongoing Training and Evaluation Program (OTEP) - This optional method for obtaining required CME for Basic Life Support knowledge and skills is designed by the prehospital agency and MPD-approved. OTEP is also a community based training and recertification process provided at the local, county, and regional level. OTEP has become the preferred method of obtaining required training with approximately 95% of all EMS agencies providing the bulk of their training at the agency level. DOH continues to work towards a goal of 100% participation by EMS agencies in OTEP.

Hospital/Health Personnel Qualifications and Trauma Education

The Department of Health (DOH) recognizes the need for a program of ongoing trauma care education for staff physicians, nurses, allied health care professionals, and community physicians. A number of the Regional Plans note the need for (and difficulty of) providing trauma training for physicians, nurses and other allied health personnel in all areas of the state.

Trauma training for physicians, nurses and other allied health personnel is coordinated at the local level by national accrediting bodies. It has been found to be easier for physicians, nurses, and allied health personnel to obtain education through their own associations and hospitals that sponsor required trauma courses in Advanced Trauma Life Support (ATLS), Trauma Nurse Core Curriculum (TNCC), Pediatric Advanced Life Support (PALS) and Advanced Cardiac Life Support (ACLS).

Under contract with DOH, Regional EMS/TC Councils have provided funding to hospital personnel for trauma courses needed to meet the trauma service designation requirements including ATLS, TNCC, PALS and ACLS. As well, each designated trauma service receives an annual participation grant from DOH that can be used to support trauma care provider training.

DOH is especially sensitive to the critical shortage of health care providers and opportunities for trauma training in rural communities. DOH's Office of Community and Rural Health operates a substitute physician referral system (Locum Tenens) to match qualified physicians with rural clinics, hospitals, and physicians in need of temporary assistance. The program is available for any type of needed leave such as coverage for vacations, attending to personal matters, attending continuing education courses, and recovering from an illness.

Trauma Education and Preparation

The state has identified several areas in the prehospital and hospital setting which need to be addressed in developing a trauma system. At a minimum, these include the following initiatives:

Mobile Training - A nationally recognized community outreach mobile training program provides continuing medical education for EMS personnel from First Responders through Paramedics. Since July 1994, over 7,615 community based/on-site medical education classes have been taught reaching over 109,971 prehospital providers.

Instructor Reserve - Prehospital health care providers throughout the regions utilize an increased cadre of qualified emergency medical and trauma instructors. These instructors provide initial, special skills and trauma training in rural, urban and suburban settings throughout the state. The average distance driven by providers from home to a training session is now only approximately 4.8 miles. Prior to 1990, it was not unusual for EMTs to drive 50 or 60 miles for these sessions. Most regions continue to identify a need for an increased number of qualified instructors. Many have met this need through additional instructor workshops.

Satellite-Based Instruction - An innovative approach to education and training is satellite-based instruction. To date, this method is not widely accepted. There are satellite-based training programs available (i.e., Emergency Education Network and Virginia's satellite-based program), but regions seem reluctant to accept this method of instruction. High start-up costs and the lack of face-to-face interaction with instructors are the main reasons cited for non-participation in satellite-based education. Until costs decrease, DOH plans only to monitor this technology as a possible future means of educational delivery to EMS personnel.

Interactive Videodisk Training - Gaining in acceptance and popularity is interactive videodisk training. Several regions identified this training format as worthy of funding. As equipment and operational costs decrease, and additional software medical topics become available, DOH will continue to promote this method of training as a viable option for maintaining CME.

Distance Learning Through The Internet - With use of the internet increasing, the development of on-line initial and continuing medical education classes and the desire to enroll in them are increasing. Although this method of instruction is not approved for statewide use at this time, the decision to use this method of instruction for continuing education at the local level is an option left up to the individual County Medical Program Directors. The DOH views distance learning as an untapped educational resource and is monitoring the technology for possible future use.

EMT Intermediate Curriculum Development – A new EMT-Intermediate curriculum was developed and implemented in February 1999. This curriculum was based on National DOT curricula and provides the educational material for the following EMT-Intermediate Life Support levels: Intravenous (IV) Therapy Technicians, Airway Management Technicians and Intermediate Life Support (ILS)

Technicians (many individuals are certified as IV/Airway Management or ILS/Airway Technicians).

Paramedic Curriculum Development - A new Paramedic curriculum was completed in January 2000 and was made available to paramedic training agencies. The development of this curriculum was based on the National Standard Paramedic Curriculum.

Training Costs - In the majority of cases, trauma system-funded training has been free of charge. Regions have indicated a need to charge registration fees for Prehospital Trauma Life Support (PHTLS) Courses. Regional planners have identified this training as expensive, especially for areas with significant numbers of EMS personnel needing trauma training. To reduce the cost of providing PHTLS training to providers, several regions plan to offer equivalent training approved by DOH.

Training Materials - Assessing current training material needs is an ongoing process. To date, regions have established and made available training materials either through regional or local EMS Councils. Some are in the process of developing resource libraries of videotapes, slides, books, and other materials. Recent additions to regional office libraries include: the new EMT-Basic Curriculum, Patient Assessment videos, and Instructor-Trainer computer disks. The State continues to serve as a clearinghouse for initial and ongoing training curricula.

Pediatric Education and Training - DOH continues to emphasize the need for ongoing education and training in the management of pediatric emergencies. EMS for Children (EMS-C), Pediatric Prehospital Care Course (PPC), Pediatric Advanced Life Support (PALS) and a significant number of pediatric-related continuing medical education classes have been and continue to be offered statewide. Regions are now beginning to discuss a future need for refresher pediatric curricula.

Senior EMT Instructors - During the revision process of administrative code, regional training representatives (with state concurrence) did not see a need for Senior EMT Instructors (SEIs) to be PHTLS Instructors. DOH continues to work towards an improved process for initial recognition of SEIs. In addition, DOH continues to implement quality improvement methods into the SEI re-recognition process. SEI Peer Reviews are one such example.

PHTLS Instructor Training - PHTLS instructor training occurs at the regional and local level and is based on assessment of need.

PHTLS Training - To address the need for uniform ongoing trauma training standards, DOH has established a set of PHTLS or trauma equivalent education and training objectives. With this program, Regions wishing to "modularize" ongoing trauma equivalent training may do so.

In addition to the DOH integrating trauma training into the First Responder and EMT-Basic curricula, most EMS and Trauma Regions have integrated trauma training programs with ongoing training and evaluation programs. The department supports and encourages this method of recertification/evaluation, provided that regions follow the policies established under the "Ongoing Training and Evaluation Program".

DOH continues to support the concept of certifying rescue personnel, law enforcement personnel, firefighters, and others at the level of First Responders. The revised administrative code establishes this process through verification.

Wilderness and Rural Area Needs - The department has developed a course guide for currently certified Washington state EMS personnel to help Search and Rescue Operations, EMS Regions, administrators and instructors plan and implement prolonged prehospital emergency care. The guide contains information for developing, designing and conducting a course.

The "Prolonged Prehospital Emergency Care Course Guide" topics/modules are designed as a special skill for currently certified EMS personnel. It is a statement of policy establishing minimum standards for structure development and course quality. The guide and protocol examples are available on the EMTP office web site at www.doh.wa.gov/hsqa/emtp or directly from the office.

EMT-Basic Curriculum - In September 1999, transition from the old EMT-Ambulance to the new EMT-Basic curriculum was completed statewide.

First Responder Curriculum - DOH is transitioning from the old First Responder curriculum to the new curriculum. Because the instructional concepts were the same as the EMT-Basic curriculum, no additional Instructor Training workshops were necessary. Full implementation of and transition to the First Responder program is expected to be completed by April 1, 2001.

EMS Education For The Future - The National Highway Traffic Safety Administration (NHTSA) is in the process of developing the "EMS Education Agenda for the Future: A Systems Approach". This approach is a vision for the future of EMS education, and a proposal for an improved, structured system, to educate new out-of-hospital emergency providers. The EMS Education Agenda for the Future builds on previously developed concepts to create a comprehensive plan for an educational system that will result in improved efficiency for the national EMS education process, enhanced consistency in education quality, and ultimately, greater entry-level student competence. The DOH continues to monitor the efforts of the NHTSA to implement the EMS Education Agenda for the Future.

VII. Prehospital Care

Communications

The state office no longer employs a communications systems specialist. However, state office staff will continue to coordinate with the Military Department's Washington Enhanced 9-1-1 Advisory Committee. This committee consists of representatives from associations of cities, counties, firefighters, communications providers and others.

Citizen Access - State legislation has enabled counties to levy excise taxes on switched telephone access lines to support emergency services communication systems. This legislation also mandates that Enhanced 9-1-1 services be available statewide to all communities. Currently, all counties now possess E-911 capabilities.

Dispatch Procedures- The Department of Health does not have the authority to directly control dispatch coordination. However, regional councils are required to develop Regional Patient Care Procedures, the written operating guidelines for the delivery of appropriate response and level of service for patients region-wide. Regional councils develop these guidelines cooperatively with emergency communications centers.

Currently neither the state nor the regional councils have the authority to require telecommunicators or their employers to meet training guidelines developed by the Department of Transportation. However, the Department of Health has developed EMD guidelines for training telecommunicators. These guidelines provide the requisites necessary to implement a quality EMD program. The EMD guidelines are generic and do not endorse any particular type of EMD program.

Communication System Integration - For the last several years, the Department of Health has been in the process of coordinating and facilitating the development of the state EMS and Trauma communications system. With the loss of the Communications Specialist this process has been discontinued. However, DOH was able to produce and publish minimum guidelines for telecommunicator training.

An integral part of system development continues to be the participation of local and regional councils. The regions prepare plans consistent with state guidelines and tailored to address the needs of local/regional communications system. What continues to be points of concern for the communications system are:

1. Although there is telecommunication training in the state, there is not a state process for EMD certification. The E911 Committee and Law and Justice Commission have been discussing the possibility of legislation to help address concerns surrounding EMD.
2. The telecommunication training supports medical oversight after training, but there is no assurance of it.

3. The communication system in each community varies in need and technological capabilities, thereby producing variables in cost to develop, modify, and maintain the system.

EMS Medical Direction

Medical Program Director Selection, Evaluation, and Support - The Office of EMTP appoints County Medical Program Directors. This physician has responsibility within the county to:

- Establish patient care protocols for prehospital field personnel;
- Oversee initial training and continuing education course content; and
- Recommend individuals to DOH for certification or recertification.

In addition, MPDs also counsel certified responders as necessary; recommend informal or formal disciplinary action to DOH when needed; participate in development of Regional Patient Care Procedures; and may delegate responsibilities to other qualified physicians. The MPD may not delegate authority over protocols or recommendations for certification or recertification.

- The Office of EMTP has initiated efforts to encourage MPDs to form a cohesive group. This is being performed at the regional and state levels with workshops. The overall goal is to improve consistency in patient care protocols across county/regional lines, which will in turn facilitate development of improved programs.

Moreover, the following strategies for continuing improvement have been implemented:

- *Regional and statewide MPD workshops*
- *Improved access to state staff for technical assistance.*
- *A new MPD handbook, which serves as a written base of information.*

Patient Care Protocols: On-Line and Off-Line Control – There are state patient care protocols for prehospital providers from First Responder through Paramedic levels. These protocols are approved by the MPD for use at the local level.

On-line and off-line medical control responsibilities are performed under the overall supervision of the County MPD. Often many of these duties are delegated to "Training Physicians" and/or "Supervising Physicians", who exercise their professional judgment within the general standards of the established protocols.

Audit and Evaluation of Patient Care - Evaluation of prehospital patient care is a specific responsibility of the MPD. Generally it is delegated to an "off-line" medical control physician associated with the licensed EMS/TC agency. Adequacy of the MPD's performance is reviewed by DOH every two years when the MPD is reappointed. Also, MPDs have the ability to utilize the DOH QI program, which also extends their "hold harmless" provision.

Prehospital Care

Ambulance Staffing - In 1991 there was an effort to change RCW 18.73.150 to require one First Responder and one EMT as the minimum staffing level for ambulance licensure. This effort failed to pass the Legislature. Current minimum staffing levels for ambulance licensure requires one EMT and one recognized in advanced first aid or certified as a First Responder. Current minimum staffing levels for ambulance verification requires (1) first responder and (1) EMT.

Ground Ambulance & Transport - As of March 2001 the state EMTP office licensed 488 Ambulance (transport) and Aid (non-transport) services. Ambulance vehicles and equipment must meet DOH/WAC standards. Equipment carried by aid vehicles must also meet DOH standards. OEMTP conducts periodic inspections of services and vehicles based on a random selection process or because of reported concerns with the service. Aid Services are required to have at least Advanced First Aid personnel on each response; transporting agencies must have at least one EMT caring for the patient, while the driver must have department-approved Advanced First Aid training or First Responder certification.

Planning for ground transportation services is a significant Regional Council responsibility by statute, rule, and contract. This planning includes the level (basic, intermediate, advanced), locations, and status (basic licensed services/verified trauma services) needed to provide comprehensive care.

Air Ambulance & Transport - Washington regulates air ambulances as distinct services (WAC 246-976-320). The requirements and standards for licensure of air ambulances closely parallel the latest National Standards. Furthermore, each licensed air ambulance agency is required to be accredited through the Commission on Accreditation of Medical Transport Systems (CAMTS). The CAMTS requirement became effective in WAC as of December 2000; however, agencies are not required to comply until July 2001.

Washington currently has helicopter air ambulance services based in Bellingham, Arlington, Seattle, Puyallup, Wenatchee, Moses Lake, and Spokane. The southwest Washington area is also covered by a helicopter service based in Portland. Fixed wing vehicles are located in Bellingham, Friday Harbor, Bothell, Seattle, East Wenatchee, Tri-Cities, and Spokane. Some parts of the south central and north central sections of the state may be questionable as to whether or not they have the same ALS-level of air transport coverage. Even though call volume is low in these rural areas, distances, climate, and road conditions make a lack of air service an area of concern and has been identified in regional plans as a significant consideration.

Statewide planning for fixed and rotary wing air transportation is the responsibility of the DOH. The department will be establishing the need for and distribution of air services statewide and is developing policies for licensing and verification of such services.

Armed Forces Command participation- Representatives from the military medical facilities in Washington have been appointed by the Governor to sit on the EMS and Trauma Care Steering Committee and have been appointed by the Secretary of the Department of Health to participate with Regional Planning and system development efforts.

Response time standards - Standards for response times for verified prehospital providers were adopted in administrative code. They have been included in plans developed by the regional councils in their assessment of need and recommendations for the distribution and levels of prehospital providers needed in their region.

Triage - Trauma Patient Identification - Washington has adopted and implemented statewide a prehospital trauma triage tool (see Appendix A) that identifies major trauma patients in the field, activates the trauma system, directs their delivery to appropriate designated trauma facilities and further directs transfer to higher-level facilities if necessary after stabilization. Regional Plans and Patient Care Procedures specify appropriate disposition of patients. The field-triage tool mentioned here is based on studies that have been validated for adults, and has been modified for pediatric patients. There appears to be no national schema that has been validated for pediatric patients. This is a matter of concern to many participants in our system, and is being monitored closely.

Verification - The EMS/TC Systems Act established a program of DOH verification of prehospital trauma services that voluntarily meets standards above those required for licensure. Verification is required for response to trauma incidents. The standards include:

- Minimum response times for ground or air that are specific to urban, suburban, rural, and wilderness response areas;
- Additional trauma-specific equipment (including pediatric equipment);
- PHTLS, BTLS or similar courses as a minimum for all responding personnel;
- Recognition of Intermediate and Advanced Life Support levels of care (licensure requires only Basic Life Support).

The following considerations for recommending min/max numbers verification are common to all regions:

- Call volume
- Population density and age distribution
- Distance
- Desired response time
- Back-up unit requirements on major trauma

- Tiered response
- Duplication of Service

The state office ultimately reviews regional recommendations. *It is the state's responsibility to make the final determination of the minimum and maximum numbers of verified prehospital agencies needed in each region and for each level.*

The table at the end of this section shows the DOH-adopted minimum and maximum numbers of verified prehospital BLS, ILS, and ALS, aid and transport agencies.

The WAC states that verification preference will be given to previously licensed services, and since it was anticipated that nearly all of the currently licensed services would seek and attain the status of verified trauma service, the current service availability is considered as the minimum for trauma care in the state. Current and future regional plans provide the basis for determining maximums.

ALS Staffing for Transporting Pediatric Patients - This was not adopted as a WAC requirement following initial public hearings, but is still a recommendation for pediatric transport/transfer units.

Interfacility Transport of Pediatric Patients - Staffing - The administrative code does not specifically address the pediatric transport team staffing requirements. Designated hospitals, health care facilities, and the physicians ordering the transport of a pediatric major trauma patient will bear the burden of determining the appropriate transport for pediatric patients. WAC requires that all facilities maintain policies, procedures and protocols for interfacility transfer agreements, and that they must use a verified trauma prehospital provider agency to transfer identified pediatric trauma patients. Designated trauma care services are also required to maintain policies, procedures, and protocols in the event that their service needs to divert an incoming pediatric major trauma patient.

Pediatric Equipment Standards - During the development of the administrative code, specific pediatric equipment was identified to be included on aid, ambulance, and advanced life support vehicles.

DOH Approved Minimum and Maximum Numbers of Prehospital Agencies by Region and County

		Aid Services		Transport Services	
		Minimum	Maximum	Minimum	Maximum
Central Region					
King County	BLS	11	15	27	30
	ILS	0	0	0	0
	ALS	1	1	5	5
East Region					
Adams	BLS	4	4	2	2
	ILS	0	0	0	0
	ALS	0	0	0	0
Asotin/Lewiston	BLS	1	1	0	0
	ILS	0	0	0	0
	ALS	1	1	1	1
Ferry	BLS	0	0	2	2
	ILS	0	0	0	0
	ALS	0	0	0	0
Garfield	BLS	0	0	1	1
	ILS	0	0	0	0
	ALS	0	0	0	0
Lincoln	BLS	2	2	6	6
	ILS	0	0	0	0
	ALS	0	0	0	0
Pend Orielle	BLS	6	7	2	3
	ILS	0	0	0	1
	ALS	0	0	0	0
Spokane	BLS	14	14	1	1
	ILS	0	0	0	0
	ALS	3	3	2	2
Stevens	BLS	2	9	4	8
	ILS	0	0	0	0
	ALS	0	0	0	0

DOH Approved Minimum and Maximum Numbers of Prehospital Agencies by Region and County

		Aid Services		Transport Services	
		Minimum	Maximum	Minimum	Maximum
Whitman	BLS	10	13	8	13
	ILS	0	0	1	5
	ALS	0	0	1	2
North Region					
Island	BLS	8	10	8	10
	ILS	0	0	0	0
	ALS	1	2	1	2
San Juan	BLS	4	12	4	12
	ILS	0	0	0	0
	ALS	3	8	3	8
Skagit	BLS	13	27	13	27
	ILS	0	0	0	0
	ALS	0	0	3	3
Snohomish	BLS	10	11	21	22
	ILS	0	2	0	0
	ALS	0	0	8	8
Whatcom	BLS	11	23	11	23
	ILS	0	12	0	12
	ALS	0	12	2	14
North Central Region					
Chelan	BLS	4	6	2	4
	ILS	0	0	0	0
	ALS	0	0	4	4
Douglas	BLS	1	5	3	4
	ILS	0	0	0	1
	ALS	0	0	0	0
Grant	BLS	4	6	4	4
	ILS	0	0	1	2
	ALS	0	0	1	2

DOH Approved Minimum and Maximum Numbers of Prehospital Agencies by Region and County

		Aid Services		Transport Services	
		Minimum	Maximum	Minimum	Maximum
Okanogan	BLS	1	7	3	6
	ILS	0	0	0	2
	ALS	0	0	1	2
Northwest Region					
Clallam	BLS	1	2	5	6
	ILS	0	0	0	1
	ALS	1	2	2	3
Jefferson	BLS	1	2	5	5
	ILS	0	1	1	2
	ALS	0	0	2	2
Kitsap	BLS	2	4	5	6
	ILS	0	1	0	1
	ALS	0	0	5	6
Mason	BLS	9	9	3	3
	ILS	0	0	0	0
	ALS	0	0	3	3
South Central					
Benton	BLS	4	4	2	2
	ILS	0	1	0	2
	ALS	0	0	5	5
Columbia	BLS	1	2	1	1
	ILS	0	0	0	1
	ALS	0	0	0	1
Franklin	BLS	1	1	2	2
	ILS	0	0	0	2
	ALS	0	0	2	2
Kittitas	BLS	5	10	1	2
	ILS	0	0	0	0
	ALS	0	0	2	2

DOH Approved Minimum and Maximum Numbers of Prehospital Agencies by Region and County

		Aid Services		Transport Services	
		Minimum	Maximum	Minimum	Maximum
Walla Walla	BLS	6	7	2	2
	ILS	0	0	0	1
	ALS	0	0	1	1
Yakima	BLS	18	20	2	9
	ILS	0	1	0	1
	ALS	0	0	3	4
Southwest Region					
Clark	BLS	1	12	1	4
	ILS	0	0	0	0
	ALS	1	12	1	4
Cowlitz	BLS	1	5	1	5
	ILS	0	0	0	0
	ALS	1	5	1	5
Klickitat	BLS	1	8	1	4
	ILS	0	0	0	0
	ALS	1	7	1	2
South Pacific	BLS	1	2	1	2
	ILS	0	0	0	0
	ALS	1	2	1	2
Skamania	BLS	1	6	1	1
	ILS	0	0	0	0
	ALS	1	1	1	1
Wahkiakum	BLS	1	1	1	3
	ILS	0	0	0	0
	ALS	1	1	1	2
West Region					
Grays Harbor	BLS	9	12	4	6
	ILS	0	0	3	6
	ALS	0	0	6	6
Lewis	BLS	8	21	11	21
	ILS	0	2	1	6
	ALS	0	2	1	6

**DOH Approved Minimum and Maximum Numbers of Prehospital
Agencies by Region and County**

		Aid Services		Transport Services	
		Minimum	Maximum	Minimum	Maximum
North Pacific	BLS	3	4	0	0
	ILS	0	0	0	0
	ALS	0	0	1	1
Pierce	BLS	24	49	2	20
	ILS	0	0	0	0
	ALS	1	10	12	24
Thurston	BLS	8	8	7	9
	ILS	0	1	0	0
	ALS	0	1	5	5

VIII. Definitive Care

Trauma Services

The American College of Surgeon's Committee on Trauma established guidelines for trauma care, which have served as a benchmark for developing trauma services in many parts of the country. These guidelines served as the starting point in Washington's trauma service development process, with modifications made to reflect the unique needs and resources of Washington State. Special efforts were made to insure that the highest quality of pediatric and rehabilitative services were integrated into the trauma system. Washington has developed a trauma service designation process, which provides for the following categories of designated trauma services, with Level I offering the most comprehensive care.

- Trauma Services, Levels I through V;
- Pediatric Trauma Services, Levels I through III;
- Trauma Rehabilitation Services, Levels I through III;
- Pediatric Trauma Rehabilitation Services, Level I.

Because of the large proportion of rural communities in Washington State, and in recognition of the significant role small rural hospitals and community clinics play as the primary focal point for stabilization and transport, Washington included one additional level of designation for trauma care services: Level V. National standards do not call for level IV and V. The existence of Levels IV and V provides an avenue to formally incorporate rural hospitals, clinics, and communities into the statewide trauma care system.

Each of these categories and levels of designation play an essential and integrated role within the statewide trauma system. Below is a brief description of their function and characteristics:

Level V Trauma Services are required to have appropriate personnel and equipment available 24 hours every day to provide initial evaluation, resuscitation, and stabilization for adult and pediatric trauma patients. The Level V trauma service will initiate transfer of all patients with potentially life-threatening injuries to a higher level of care. Level V trauma services have trauma-trained physicians, physician assistants or nurse practitioners available to a trauma patient within 20 minutes of notification. Health care facilities that apply to be a Level V trauma service may be a licensed hospital or medical clinic, and most likely are based in rural areas of our state.

Level IV Trauma Services are required to have appropriate personnel and equipment readily available to provide initial evaluation, resuscitation, initiate diagnostic studies, and stabilization (surgically if appropriate) for adult and pediatric trauma patients. A designated Level IV trauma service will initiate the transfer of major trauma patients

that require a level of trauma service beyond the facility's scope of care and treatment. Level IV trauma services provide trauma-trained emergency nurses, available to trauma patients within 5 minutes, and trauma-trained emergency physicians, available to trauma patients within 20 minutes of the patient's arrival. A Level IV service may or may not provide intensive care services. Health care facilities that apply to be a Level IV trauma service will primarily be licensed hospitals located in rural and suburban areas of our state.

Level III Trauma Services are required to have appropriate personnel and equipment readily available to provide initial evaluation, resuscitation, initiate diagnostic studies, and stabilization (surgically if appropriate) for adult and pediatric patients. Level III trauma services provide comprehensive general medical, surgical and intensive care inpatient services. The trauma patients who can be maintained in a stable or improving condition without sub-specialty surgical care or intervention, are usually cared for and discharged from the Level III trauma service. A Level III trauma service will initiate the transfer of major trauma patients that require a level of trauma service beyond the facility's scope of care and treatment. Level III trauma services have a physician-directed, multi-disciplinary trauma committee, a formally-organized trauma resuscitation team, and provide trauma-trained emergency physicians and nurses to the Emergency Department to care for the trauma patient within five minutes. Health care facilities that apply to be a Level III trauma service are licensed hospitals located in rural, suburban, and urban areas of our state.

Level II Trauma Services, in addition to the capabilities of the level III above, provide comprehensive diagnostic studies, equipment, and definitive care for complex and severe adult and pediatric trauma patients. Emergency physicians and nurses are in-house 24-hours a day, as well as personnel who can initiate surgery. Neurological assessment and stabilization can be started within five minutes, and a neurosurgeon is available within 30 minutes. There is a broad range of specialists available for consultation or care, generally within 30 minutes. Community outreach, education, and prevention are required. Health care facilities that apply to be a Level II Trauma Care Service are licensed hospitals, usually located in suburban and urban areas of our state.

A Level I Trauma Care Service provides the most comprehensive diagnostic studies, equipment, and definitive care for adult and pediatric patients with complex traumatic injury. Personnel who can initiate surgery are in-house and immediately available. In addition to the capability of providing the most comprehensive direct patient care, Level I trauma services are also responsible for research, education, prevention and outreach programs in trauma care throughout the state. The health care facility designated as a Level I Trauma Care Service is a licensed hospital located in Seattle, the most urban area of our state.

Pediatric Trauma Services

Pediatric Trauma Services are required to have appropriate personnel and equipment readily available to provide initial evaluation, resuscitation, diagnostic studies, and stabilization of the pediatric trauma patient. Pediatric patients are defined as being less than 15 years of age.

Level III Pediatric Trauma Services provide comprehensive medical and surgical inpatient services. Pediatric trauma patients in a stable or improving condition without the need for subspecialty surgical care or intervention are usually cared for and discharged from the Level III pediatric trauma service. Transfers are initiated when major pediatric trauma patients require a scope of care and treatment beyond the facility's capabilities. Critical care inpatient services may be provided if the critical care standards established for the higher Level II pediatric trauma care service are met by the Level III pediatric trauma service. If not, children requiring critical care services are transferred to a higher-level pediatric trauma service. Level III pediatric trauma services have a multi-disciplinary trauma committee led by a physician with specialized pediatric trauma competence, and including participation by a pediatrician. A formally organized trauma resuscitation team responds to the injured child, including an emergency physician within 5 minutes and a general surgeon within 30 minutes. Both must have special competence in the care and treatment of pediatric major trauma patients. Level III pediatric trauma services are licensed hospitals usually located in suburban and urban areas of our state.

Level II Pediatric Trauma Services have the capabilities of the level III as presented above, with additional requirements and capabilities that allow them to provide definitive care for complex and severe pediatric trauma patients. Surgeons must respond within 20 minutes of being called, and a neurosurgeon must be available within 30 minutes when needed. Pediatric critical care services are required, and are directed by a pediatric critical care specialist. A pediatric critical care provider must be available within 5 minutes. There is a broad range of specialists available for pediatric patient consultation or management. Community outreach for injury prevention is required, as well as providing consultation for community and outlying area physicians regarding pediatric trauma care. Level II pediatric trauma services are licensed hospitals usually located in urban areas of our state

Level I Pediatric Trauma Service provides the most comprehensive diagnostic studies, equipment, and definitive care for pediatric patients with complex traumatic injury. Personnel who can initiate pediatric general surgery and Neurosurgery are in-house and immediately available. The Level I pediatric trauma service is responsible for similar outreach and prevention activities as are the Level II pediatric services. Additionally they are required to have a pediatric trauma research program and have a residency program with a commitment to training physicians in pediatric trauma management. The Pediatric Level I Trauma Care Service is a licensed hospital in Seattle.

Trauma Rehabilitation

In addition to designation of acute trauma care facilities, DOH designates four levels of trauma rehabilitation services: Level I - III Adult Trauma Rehabilitation and Level I Pediatric Trauma Rehabilitation.

Level III Trauma Rehabilitation Services provide a community-based program of coordinated and integrated outpatient treatment to trauma patients with functional limitations who do not need or no longer require comprehensive inpatient rehabilitation.

Level II Trauma Rehabilitation Services provide comprehensive inpatient and outpatient rehabilitation treatment to trauma patients with any disability or level of severity or complexity within the services capabilities and delineated admission criteria.

Level I Trauma Rehabilitation Services provide comprehensive inpatient and outpatient rehabilitation treatment to trauma patients regardless of level of severity or complexity of disability. These facilities serve as regional referral centers for patients, physicians, and other health care professionals in the community and outlying areas and have ongoing, structured programs for research, education and outreach.

Level I Pediatric Trauma Rehabilitation Services provide comprehensive inpatient and outpatient rehabilitation treatment to pediatric trauma patients regardless of level of severity or complexity of disability. These facilities serve as regional referral centers for patients, physicians, and other health care professionals in the community and outlying areas and have ongoing, structured programs for research, education, and outreach.

The standards for trauma rehabilitation services, with the exception of Level III, include accreditation by CARF - the Commission on Accreditation of Rehabilitation Facilities. All trauma rehabilitation services participate in the state trauma registry and regional QA/QI programs.

In addition to designation of trauma rehabilitation facilities, DOH requires each designated acute trauma care facility (adult and pediatric) to have a Trauma Rehabilitation Coordinator. This individual is involved in care of the patient from entry into the Emergency Department, to eventual discharge, whether to a designated Trauma Rehabilitation Service or elsewhere.

The Trauma Rehabilitation Coordinator is expected to provide early intervention, promote awareness by other caregivers of the impact on rehabilitation outcome of medical and/or surgical treatments, and facilitate transfer to designated Trauma Rehabilitation Services or other discharge planning as appropriate. The Trauma Rehabilitation Coordinator will be a member of the Quality Assurance Committee in each designated Trauma Care Service, insuring that rehabilitation is treated as part of, not an add-on to, emergency trauma care.

Designation Process

The designation process initially consists of two major phases: assessment of need and determination of capability. The assessment of need begins with each of the eight Emergency Medical and Trauma Care Regions identifying the numbers and levels of Trauma Care Services needed in their area. This process follows general guidelines provided by the state office, but allows for broad variations and differing methodologies among each of the Regions. In addition, the EMS and Trauma Care Steering Committee reviews each Region's recommended numbers and levels of designation.

The Office of Emergency Medical and Trauma Prevention also generates a set of advisory forecasts for trauma cases. These forecasts take into account inter-regional patient flow, which is shown to be significant for the more severe trauma cases.

Regional plans also stress the need to: 1) insure that optimal patient care is not compromised by "artificial" borders, and 2) that each region take the responsibility to adequately prepare for any demands that might be placed upon them by the other regions.

The second consideration listed above is particularly true for the Central Region where Harborview Medical Center (HMC) is located. HMC has traditionally served as the highest level Trauma Care Service for the northwestern United States, for Washington State, and the Puget Sound area in particular. In addition, those regions bordering Oregon or Idaho routinely "share resources" with those states' EMS and Trauma Care Systems. In fact, several Washington hospitals are active participants in Oregon's Trauma Care System, and one Idaho hospital is an active participant in Washington's system.

It is important to note that while previous and existing forecasted volumes of trauma cases are an important consideration in determining the need for designating Trauma Care Services, they are not the overriding deciding factor.

Four primary objectives underlie the designation process:

- *Access,*
- *Quality,*
- *Viability, and*
- *Cost.*

While patient volumes certainly play a role in each of these objectives, the American College of Surgeons has established a minimum volume standard for Level I trauma services only. Therefore, Washington State has identified two other factors that affect access, quality, viability, and cost: *commitment and existing resources*. Consideration of these factors allows the regions more flexibility in assessing the need for Trauma Care Services within their area and does not preclude other institutions which do not meet the minimum volume standards, yet demonstrate a commitment and ability to provide high quality trauma care services.

The state office ultimately reviews regional recommendations. *It is the state's responsibility to make the final determination of the minimum and maximum numbers of trauma services needed in each region and for each level.*

The table at the end of this section shows the DOH-adopted minimum and maximum number of Levels I through V, Pediatric I through III, and Rehabilitation I and II designations to date.

The second phase of the designation process (i.e., *the determination of capability*) begins with notification to all potential participants within one or more regions of the need for trauma services. Health care facilities that are interested in becoming a designated trauma service, submit a written application in response to a comprehensive application packet released by DOH.

The state office has various methods of providing information and technical assistance to assist health care facilities in assessing their capabilities to meet the designation standards to participate in the state's Trauma Care System. Technical assistance includes; the identification of a primary contact within the office, information regarding patient flow patterns, patient volumes, patient-payer mix, average lengths of stay, other pertinent variables and coordination upon request or determination that consultation with experienced trauma service providers is needed.

Each application received is reviewed in the state office to assure that the applicant is in compliance with all requirements. Those Level I - III applicants (except trauma rehabilitation applicants) who pass the "administrative review" will receive a thorough on-site review by a team of experts in the provision of trauma care. For Levels I and II trauma service reviews, the team will consist of experienced out-of-state reviewers. When performing reviews for Levels III, the teams will minimally consist of experienced out-of-region reviewers.

Appendix E shows a list of designated acute, pediatric, and rehabilitation trauma services.

After designation, facilities are subject to random, unannounced audits and inspections by DOH to insure that they continue to meet the standards.

For those larger and more sophisticated institutions which are expected to apply for designation at Level I or II, technical expertise on the designation process likely exists in-house or can be contracted without undue duress. However, for smaller institutions, and in particular those hospitals and clinics serving rural and Native American communities, in-house expertise or contracting capabilities may be non-existent.

Interfacility Transfer

Transfer Criteria - While the 1990 Report to the Washington State Legislature identified a list of injuries that should be considered for transfer to a Level I or II Trauma Care service, they were not adopted into administrative code. Instead, each designated trauma facility is required to develop its own policies and procedures for immediate stabilization of trauma patients (including pediatric patients) and for continued treatment or transfer to other facilities as medically appropriate. In particular, policies on diversion when a patient's needs do not "match" the capabilities of a hospital, or for stabilization and later transfer to a specialty-care facility when medically appropriate. These "transfer" policies may be triggered by the severity of the trauma, by the specific type of trauma (e.g., spinal cord injury, burns), by unforeseen difficulties (e.g., unavailability of diagnostic equipment or malfunction), or a combination of factors.

**Trauma Service Designation Minimum and Maximum Numbers by
Region and Level of Designation**

	Level	Services Needed		Services Currently Designated	Gaps Remaining in Designation	
		Minimum	Maximum		Minimum	Maximum
Level I - Statewide	I	1	1	1	0	0
	I - P	1	1	1	0	0
Central	II	0	0	0	0	0
	III	3	3	3	0	0
	IV	4	4	4	0	0
	V	0	0	0	0	0
	II - P	0	0	0	0	0
	III - P	0	0	0	0	0
East	II	1	2	2 (1 Joint)	0	0
	III	3	4	3	0	1
	IV	8	10	6	2	4
	V	3	6	6	0	0
	II - P	1	2	1 (Joint)	0	1
	III - P	1	2	1	0	1
North	II	2	3	1	1	2
	III	4	6	4	0	2
	IV	1	2	2	0	0
	V	1	4	2	0	2
	II - P	0	0	0	0	0
	III - P	1	2	0	1	2
North Central	II	1	1	1	0	0
	III	2	2	0	2	2
	IV	4	4	5	0	0
	V	3	3	4	0	0
	II - P	1	1	0	1	1
	III - P	1	2	1	0	1
Northwest	II	1	1	0	1	1
	III	2	2	2	0	0
	IV	2	3	3	0	0

	V	3	4	0	3	4
		Services Needed		Services Currently Designated	Gaps Remaining in Designation	
	Level	Minimum	Maximum		Minimum	Maximum
	II - P	0	0	0	0	0
	III - P	1	1	0	1	1
South Central	II	3	3	1	2	2
	III	3	3	4 (2 Joint)	0	0
	IV	2	2	3	0	0
	V	2	2	2	0	0
	II - P	1	1	0	1	1
	III - P	2	3	2	0	1
Southwest	II	1	1	1	0	0
	III	1	1	1	0	0
	IV	3	3	3	0	0
	V	1	2	0	1	2
	II - P	0	1	0	0	1
	III - P	0	1	0	0	1
West	II	2	3	2 (1 Joint)	0	1
	III	1	6	3	0	3
	IV	2	8	5	0	4
	V	1	1	1	0	0
	II - P	1	1	1	0	0
	III - P	0	0	0	0	0

P - Pediatric Trauma Service

Trauma Rehabilitation Designation Minimum and Maximum Numbers by Region and Level of Designation

	Level	Services Needed		Services Currently Designated	Gaps Remaining in Designation	
		Minimum	Maximum		Minimum	Maximum
Level I - Statewide	I	3	4	4	0	0
	I - P	2	4	4	0	0
Central	II	4	6	2	2	4
	III	*	*	1	*	*
East	II	0	0	0	0	0
	III	*	*	0	*	*
North	II	2	3	1	1	2
	III	*	*	0	*	*
North Central	II	1	1	1	0	0
	III	*	*	0	*	*
Northwest	II	0	0	0	0	0
	III	*	*	1	*	*
South Central	II	3	3	3	0	0
	III	*	*	0	*	*
Southwest	II	1	1	1	0	0
	III	*	*	1	*	*
West	II	3	4	2	1	2
	III	*	*	1	*	*

* No restrictions on Min/Max numbers

P - Pediatric Trauma Service

IX. Evaluation

Data Collection

System Requirements - Three major databases form the primary core of the trauma information system:

- **State Trauma Registry** - A statewide registry of major trauma including linked hospital and prehospital information.
- **Comprehensive Hospital Abstract Reporting System (CHARS)** - A hospital discharge database that includes ICD-9-CM E-Codes.
- **Multiple Cause of Death Data Base** - A detailed death certificate file identifying the primary and underlying causes of death.

Other data sets, which augment this core, include the Fatal Accident Reporting System (FARS), the Hospital Utilization Report, and the Behavioral Risk Factor Survey.

State Trauma Registry - Data elements and the inclusion criteria for the state trauma registry are described in the EMS/Trauma rules. DOH provides "Collector" computer software without cost to all verified prehospital and designated hospital trauma services. Data elements in this software include all information required by the State Trauma Registry, and also supports collection of information on a full range of EMS and hospital patients with less severe injuries and, for EMS, medical patients.

Since 1995, more than eighty-five hospitals have contributed nearly 60,000 patient records to the Trauma Registry. Also, over 250 prehospital agencies have submitted 47,500 trauma records and nearly 275,000 medical records. Registry data is available to assist each designated Trauma Care Service's internal Quality Assurance program, for Regional Quality Assurance Programs (under the direction of Levels I, II and II facilities) and for Regional Council planning. In addition, the EMTP office provides statewide analyses as well as regional and local area comparative reports.

Regional Council Monitoring of Prehospital Agencies - Since the mid-1980s, the EMTP office provided a Medical Incident Report (MIR) form, at no cost, to all EMS agencies. The form supports data collection for all aspects of prehospital emergency care, transport and non-transport, trauma and medical, and basic and advanced life support.

The EMTP office is working closely with the Washington Traffic Safety Commission, the Washington Association of Fire Chiefs, the State Fire Marshall, and other individuals and groups to provide broad EMS system data for planning and quality assurance at local, regional and state levels.

Trauma System Evaluation

Statewide and Regional Quality Management - Each designated facility must participate in a Regional Quality Assurance Program. The focus of the regional program will be on performance of the entire system, and will be organized by the designated Levels I - III facilities in each region. All levels of designated facilities, as well as prehospital providers, medical control and others involved are to be allowed to participate at some level. When appropriate, results of the Regional QA Programs will be relayed to the EMSTC Councils for information in developing future Regional Plans and Patient Care Procedures. All Regional Plans recognize the need for valid data regarding patient care and outcomes at all levels and the critical role that the State Trauma Registry will play in the QA process.

Trauma Service Quality Management - Each designated trauma service must have an internal Quality Assurance Program meeting DOH standards that are specified in WAC. Facilities above Level IV are required to have regular, multi-disciplinary trauma committee meetings, including special audit processes at least for all trauma deaths. Proceedings of medical care audits and other QA activities are open to inspection by DOH representatives (including teams conducting on-site reviews).

Trauma Care Research - Harborview Medical Center, one of five trauma services recognized nationally by National Institute of Health, supports ongoing research in three major areas: injury research (with a specific focus on head injuries), resuscitation and monoclonal antibodies, and Adult Respiratory Distress Syndrome (ARDS).

X. Key Areas for Future System Focus and Development

In the fall of 1999 the Steering Committee met with state EMTP staff to evaluate the history of the trauma system and establish areas of focus. The group established eight areas, which they listed in order of importance. Each member of the group was asked to rank the topics with 1 being most important. A compilation of the rankings determined the overall order of priority. The results are as follows: (1) Data, (2) Quality Improvement, (3) Cardiac, (4) Funding, (5) Prehospital, (6) Regional, (7) Disaster, and (8) Dispatch. These and other issues will help guide the EMTP office efforts in the future.

Focus Areas

Data – Determine and demonstrate whether there is a difference being made by the system; promote one hundred percent involvement of prehospital trauma data collection efforts and evaluate methods for achieving full participation; assure data quality; establish routine reporting to the Steering Committee.

Quality Improvement – Place greater emphasis on quality improvement by improving prehospital quality improvement; selecting data elements that evaluate/reflect performance across the continuum of care; promoting inter-regional quality improvement; and developing a cost/benefit analysis of prevention, prehospital interventions, hospital capabilities, training requirements, and rehabilitation.

Cardiac – Assess the current status of cardiac care in Washington State; develop a Cardiac Technical Advisory Committee; and develop data elements to assess current status of cardiac care;

Funding – Show the distribution of current funding; provide funding based compliance; and show the cost/benefit of trauma funding vs. quality improvement outcomes.

Prehospital – Determine the quality of Intermediate Life Support needed in the state and limit programs accordingly; determine compliance with existing rules; consider redefinition of urban, suburban, rural, and wilderness; and develop and implement inter-county/regional patient care protocols.

Regional Accountability – Identify changes such as a standard plan format; continue to review regional plans with the current face-to-face format; and look at response times to determine how often they are met and if they should be changed.

Disaster – Educate providers and agencies on current standards in disaster management and develop an annual report; identify state and federal funds for training exercises; standardize training; and require local/regional agencies to report annually on drills and exercises.

Dispatch – Work with the E-911 committee and other organizations to develop and implement a statewide training program with hold harmless provisions for medical oversight and pre-arrival procedures.

The overall goal set forth at this meeting was to improve patient outcomes. The objective was established to increase the rate of unexpected saves for patients with penetrating injuries from 3 of every 100 patients to 8 of every 100 patients by the year 2003.

As a result of the discussion conducted at this meeting, as well as, issues arising through legislative action and constituent need, the following activities are being implemented or considered:

Emergency Cardiac Care

A new TAC was established in early 2000 to assess and evaluate the provision of emergency cardiac and stroke care in Washington State. The mission of the Emergency Cardiac TAC is to reduce death and disability in Washington State due to acute coronary syndromes and stroke. The TAC's goals are to evaluate and assess current emergency cardiac and stroke care in Washington State (prehospital, hospital and rehabilitation); identify an optimal, evidence-based system of emergency cardiac and stroke care; identify current gaps, strengths and weaknesses in Washington State emergency cardiac and stroke care; and promote prevention and public education regarding emergency cardiac and stroke care. An initial strategy will be to develop surveys to assess the current capacity of both hospital and prehospital services to provide care for patients with acute coronary syndromes and stroke. The Committee will use the survey information along with cardiac data that has been compiled from multiple sources to identify strengths and weaknesses of emergency cardiac care in Washington and to make recommendations for improvement.

Public Information and Prevention

The state EMTP office is supporting the development of injury prevention and education activities outlined by the Injury Prevention and Public Education Technical Advisory Committee. The focus of these efforts is to reduce alcohol-related fatalities in Washington State, reduce disabling falls among older adults, and strengthen injury prevention networks regionally and statewide.

Reduce Alcohol-Related Fatalities – A one percent per year reduction over three years is expected through various activities. These activities include educating citizens to the consequences of impaired driving, the right of the driving public to sober roadways, designated driver options, various grassroots efforts, supporting graduated licensing efforts for novice drivers, and other education efforts such as the fatal vision goggles education program, Sober Roadways, Minors in Prevention, and DUI impact panels.

Reduce disabling falls among the older adults – Falls among the population over 65 years-of-age often results in permanent disabilities and premature death. Through education and intervention these risks can be reduced. Over the next few years, injury prevention specialists across the state will be identifying key stakeholders and developing interventions. The IPPE TAC will also function as an advisory committee

for a DOH grant from the Centers for Disease Control and Prevention that addresses falls.

Each Level I, II, and III trauma service will develop a policy and procedure for assessment and intervention for trauma patients admitted with a positive blood alcohol level or drugs of intoxication screen.

Strengthen Injury Prevention Networks Regionally and Statewide – This effort involves a number of plans. Injury prevention specialists will develop online access to resources, annual planning sessions, regional and state directories, bi-monthly meetings and trainings, interactions with other health service organizations, and coordinating partnerships with injury prevention and safety groups within the state and nationally.

Prehospital Care

It is the intention of the state EMTP office to continuously improve prehospital care services. Over the next few years the office will be in the process of evaluating several prehospital performance indicators to establish baseline data and measure change where possible. Three areas of performance are being assessed: compliance with Trauma Triage Tool/Patient Care Procedures, functionality and effectiveness of regional Patient Care Procedures, and response time standards for all verified prehospital services. In addition, the EMTP office will work toward developing recommendations for minimum and maximum numbers of air ambulance response and transport agencies.

Compliance with Trauma Triage Tool/Patient Care Procedure – The Trauma Triage Tool (Appendix A) specifies that a major trauma patient, once identified, shall be transported to the highest-level Designated Trauma Service within 30 minutes by ground or air. The purpose of this tool is to ensure that major trauma patients receive the best, most appropriate care within the shortest amount of time. The EMTP office will evaluate data sources, such as the Washington Trauma Registry, to use as assessment measuring tools. Ultimately this analysis will be used to compare to patient outcomes.

Promote Optimal Patient Care through Functional and Effective Regional Patient Care Procedures – Regional Patient Care Procedures (PCPs) are the written operating guidelines, and a blueprint for EMS and trauma system operations, developed and implemented within each of the eight regional EMS and trauma systems in Washington State. PCPs are developed and adopted by each regional council, in consultation with local EMS/TC councils, emergency communication centers, and county Medical Program Directors in accordance with minimal statewide standards, and approved for implementation within a region by the Department of Health. County EMS and trauma system operations may also be more completely specified and defined in County Operating Procedures (COPs), which are developed by county EMS and trauma care system participants, adopted as an appendix to the regional PCPs by the regional council, and approved as an appendix to the regional PCPs by the Department of Health.

Primary assurance of the provision of an optimal level of patient care provided under approved regional PCPs and COPs is expected to be achieved through (1) regular reviews of patient outcomes and case specifics by statutory regional EMS and trauma care QI programs, (2) regular verified prehospital agency/MPD reviews of ambulance

runs, including response times, provision of patient care at the scene, and patient outcomes, (3) review of trauma registry data in regard to system operations and patient outcomes, and (4) annual regional council reviews of approved PCP content by EMS and trauma system participants, and assessment of on-going patient care provision within the context of the TTT, approved regional PCPs, and approved county operating procedures.

Compliance with Response Time Standards for Verified Prehospital Agencies –

The following table indicates the response time standards for verified prehospital agencies (WAC 246-976-390).

Response Time Standards (in minutes)

Area	Aid Services (non-transport)	Ambulance Services (transport)
Urban	8	10
Suburban	15	20
Rural	45	45
Wilderness	As soon as possible	As soon as possible

According to WAC, these response times are to be met at least eighty percent of the time. Historically, injury data suggest that the most critical time for treatment of major trauma is within the first hour of injury. This is often referred to as the “golden hour.” The standards used in the Washington Trauma System have been instituted to address the balance of the need for treatment within the golden hour and the travel time requirements within a given geographic area. The EMTP office will be conducting an ongoing review of response times to determine if the response times are being met and if any changes to the time or compliance requirements are needed.

Air Ambulance – Presently, WAC does not require that prehospital air ambulance agencies meet response time standards (WAC 246-976-320 and WAC 246-976-390). This lack of regulation recognizes that these agencies are not initial responders and are only called in when ground personnel and/or medical control deem their services necessary. Furthermore, air ambulance service locations are limited and flight characteristics are affected by many variables, mainly weather. Therefore, imposing response time standards is difficult. They are, however, subject to the requirements of the Trauma Triage Procedure requiring the transport of all major trauma patients from the scene to the highest-level designated trauma service within 30-minutes.

A basic difference is recognized between air ambulance vehicles that provide scene response and those that provide inter-facility transport. With the exception of injuries or medical incidents occurring at or near an airport facility, scene response for air ambulance services requires that rotary wing vehicles be dispatched. Inter-facility transport may be accomplished using either fixed and rotary wing aircraft.

In order to establish the need for and distribution of air ambulance services, an effort will be made to analyze each agency’s coverage currently licensed and operating within the state system. The focus of this analysis will be to establish the capabilities of these services to determine if any system gaps in coverage or care exist.

Other areas of focus might include an activation process, interfacility procedures, and fly/no-fly conditions. These together may be thought of as a triage tool for air ambulance services.

Definitive Care

Within the definitive care arena, the state EMTP office will strive to assure that the system of trauma service designation meets the needs of all patients requiring care. To this end, the office will evaluate designation levels and patient destinations, transfers, and outcomes.

Designation Application – The EMTP office has completed two full rounds of trauma service designation. This means that most trauma services around the state have been designated for six years and have training, equipment, personnel, and policies and procedures in place to care for seriously injured patients. The application for round three, which began February 2001, has been revised to reflect a quality improvement approach to trauma services designation. Trauma services will use their own registry data to illustrate improvement and areas for improvement measured against their own established policies and benchmarks.

Pediatric Designation – The state EMTP office is evaluating the current distribution of designated pediatric trauma services throughout the state. This evaluation coupled with an analysis of pediatric patient destination and outcomes will help to determine if expansion of or changes to the minimum/maximum numbers for pediatric service designation is warranted.

Clinical Care Guidelines – The Office, in collaboration with the trauma medical directors, the trauma service coordinators, and the Washington Chapter of the Committee on Trauma, American College of Surgeons, will continue to review and endorse clinical guidelines in an effort to promote a consistent approach to specific aspects of trauma care across the state.

Trauma System Evaluation

As data collection methods evolve, computer systems get more sophisticated, and the need grows for data to help to make policy decisions, the trauma system data collection efforts must be flexible. The EMTP office is evaluating options for future data collection and distribution in both the Hospital and Prehospital arenas.

Prehospital – Currently, verified prehospital agencies are responsible for submitting trauma patient data to the Washington Trauma Registry. Currently, there are nearly 500 such agencies; over 200 of which are small, rural, and all volunteer. Since trauma constitutes only five to seven percent of prehospital call volume, many of these agencies do not have enough resources to submit their data. Often the prehospital data are not complete or need better quality control. In order to ensure that prehospital data collection can be complete and consistent, the state office will transition to prehospital agencies submitting their trauma data through the hospital where they transport injured patients – the agencies are currently required to submit their run sheets to the receiving hospitals. This transition to hospitals submitting prehospital trauma data will be complete by January 1, 2002. The system will continue to work with the Fire Chief's to implement a comprehensive statewide EMS data collection approach that is inclusive of all types and severities of patients cared for by EMS.

Data Quality – With strong reporting compliance from the designated trauma services, attention is moving toward data quality. Data quality reports will be generated to allow individual hospitals to see how they are doing compared to other hospital at their level of designation. These reports will enable services to improve their data quality in a timely manner – a benefit to their individual quality improvement programs, the regional quality improvement committees, and the state EMTP office. Data linking is also a priority as it allows for review of interfacility and interregional issues. Emphasis will be placed on assuring that record linkages are made for patients seen at multiple facilities. This will aid in the review of trauma system performance indicators such as time to transfer, appropriateness of transfers, and trauma team activations.

Statewide Quality Improvement Forum – A statewide forum will be established to review and discuss quality improvement issues and concerns that affect the statewide trauma care system. Issues would include regional, interregional, and statewide concerns.

Summary of 1990 Recommendations

1990 Recommendations

Administrative Components

A centralized state authority should be established to institutionalize a statewide emergency medical services and trauma care system, with a single state Trauma Advisory Board.

The Washington State Legislature adopted broad enabling legislation and a plan for EMS and Trauma Care System development in 1990. This legislation also established a Governor-appointed Emergency Medical Services and Trauma Care Steering Committee, which provides advice to the Department of Health on EMS and Trauma Care needs throughout the state.

Minimum standards shall be developed and implemented through a central authority.

Minimum standards were recognized in statute and have been specifically outlined in administrative code using an extensive public review and comment process. They were based on the recommended standards identified in the 1990 EMS and Trauma Care Plan. The department may modify standards in rule if necessary. The Regulatory Reform Act requires rules to be reviewed every four years.

Regional Trauma Networks should be coordinated by Regional Councils, which will have responsibility for the development of a trauma care plan for each region.

Regional Councils have been given the responsibility to develop and implement an EMS and Trauma Care Plan for their region. These also require biennial review, which acknowledges variations in the state and phased implementation of the system. Additionally, in conjunction with the County MPDs and the communication centers, the councils are responsible for the development of Regional Patient Care Procedures, which define and operationalize the system components.

Regional Trauma Networks should be based on existing EMS regions.

Prior to the EMS and Trauma Care Act of 1990 the state of Washington had been divided into eight EMS regions, primarily based on prehospital patient flow. These regions combine from four to nine counties in the state and were not changed. Additionally, membership was expanded to include a balance of hospital and prehospital trauma care and EMS providers, local elected officials, consumers, law enforcement representatives, and local government agencies involved in EMSTC service.

The state of Washington should guarantee to its citizens and visitors an organized response from its prehospital care and transportation providers.

The department contracts with the Regional EMS and Trauma Care councils for the development and implementation of a plan for a regional system for the delivery of EMS and Trauma Care services. The regional councils are also required to develop Patient Care Procedures, which are the operational guidelines by which the providers respond to the medical and transport needs of the EMS and trauma patient.

Each region should structure an emergency medical services and trauma care system in a manner that ensures the most prompt access to appropriate care.

Regional planning includes all components of an EMS and Trauma Care system. Components of an EMS and Trauma Care system include Prevention, Prehospital Care, Definitive Care and Rehabilitation. These components are developed, implemented, and continuously evaluated.

Transportation needs for the state should be addressed on a regional basis by the use of a well-defined regional plan to identify the ambulance service areas and guidelines or protocols, and to ensure that all areas of the state are covered by EMS transportation.

The department contracts with the Regional EMS and Trauma Care Councils for the development and implementation of a plan for a regional system for the delivery of EMS and Trauma Care services. As noted above, the Councils also develop Patient Care Procedures.

Fair and equitable reimbursement should be provided for trauma care and system overhead costs incurred by all participating providers.

Dedicated financial support must be provided and must be predictable to fund system development; to provide equipment in rural areas where inadequate financial support exists; for education, development and maintenance of a statewide trauma registry; for system monitoring; and for under-compensated and uncompensated care.

Current Funding for operations and regional grants is from the State General Fund.

A Trauma Care Cost Reimbursement Study was completed in 1991. Based on this study an estimated \$38 million/biennium would be needed to cover hospital, physician and prehospital provider unreimbursed costs. In 1996, legislation was passed that established a fund in the amount of \$4.6 million to provide improved reimbursement for the medically indigent. In 1997 the Trauma Care Reimbursement Act was passed which, including supplement federal funding, will provide approximately \$32 million per biennium for payment for uncompensated trauma care, training, and equipment to physicians, acute care and rehabilitation facilities, and EMS and trauma care provider agencies. The 1997 legislation also allowed for 25% of the estimated need to be derived from local matching funds (including soft money, such as, time donated by volunteer EMS personnel).

Operational and Clinical Components

Injury prevention efforts should be focused toward getting the public to employ methods now known to be effective in reducing incidents of major trauma.

Through the regional and state office programs, several thousands bicycle helmets have been distributed and correctly fitted to mostly low-income families. Bicycle helmets are known to reduce the risk of head injury by 85% and the risk of brain injury by 88%. Several bicycle skills "rodeos" for children are sponsored by the EMS/Trauma regions each year. Helmets are often distributed through these, and all regions are involved in bicycle helmet promotion.

The Sober Roadways for Washington Campaign was initiated by the Injury Prevention/Public Education TAC, to address the problem of drinking and driving. Over 30,000 people, both adults and teens, have been reached. Mock DUI crashes are sometimes staged high schools in conjunction with a Sober Roadways presentation. EMTs and other EMS/Trauma system personnel are closely involved.

Safe Kids, a nationally-supported program to address unintentional injuries among children 0-14 years-of-age; a phenomenon on the rise in Washington State over the past two years. Currently, there are fourteen Safe Kids Coalitions in the state covering 17 counties. Three chapters are seeking coalition status. Safe Kids Coalitions are involved in a variety of injury issues: child passenger safety to promote correct use of care and booster seats, bicycle helmet distribution and fitting, life vest loan programs and other drowning prevention activities, farm safety, and others. It is anticipated that Safe Kids will continue to grow and reach thousands of Washington children and their families.

Reach Out With Hope is a suicide awareness and prevention program begun by East Region to deal with intentional trauma. Community "gatekeepers" are trained in signs of suicide, how to talk about it, and how to intervene with a possibly suicidal individual. There are specific actions people can take to reduce the risk of suicide.

Child car seats are very effective in reducing injuries to child motor vehicle occupants. This is not only true in crash situations, but also during sudden stops or turns and/or unintentional car door openings. Several car seat loaner and give-away programs have been established to serve low-income families. The booster seat law of 2000 reemphasized child passenger safety. Through regional EMS trauma and injury prevention partners, thousands of car seats are checked for correct use, fittings and placement. Trained certified car seat technicians and many volunteers conduct these checks.

While not technically "trauma" because there is usually no surgical intervention, childhood drowning prevention interventions have been implemented through seven of the eight EMS/Trauma regions. Promotion of life jacket wearing among children and non-swimmers, boating safety, not drinking and boating and other interventions have been successful. High-risk populations of Hispanics received a Spanish-English fotonovela about alcohol and boating/swimming safety. A targeted media campaign was geared toward teenagers, another high-risk population.

Falls among older adults is a leading cause of hospitalization and hip trauma. The Tread to Safety program, initiated in East Region, has been adopted by other regions. It uses EMS providers as educators in senior centers and nutrition sites to talk about fall prevention and provide home safety check lists.

EMS/Trauma regions also help support and/or are involved in: Highway safety projects, Trauma Nurses Talk Tough, THINK FIRST Head and Spinal Cord Injury Prevention Program; local anti-drunk driving and victims panels efforts; provide mini-grants to local agencies for prevention projects; and support in jury prevention coalitions.

Each designated Level I, II, and III trauma service is required to have a public education program addressing injury prevention. Each trauma service is encouraged to utilize trauma data to focus injury prevention activities.

Undertaking of injury control projects, which have been evaluated for their effectiveness, shall be encouraged.

- *The Harborview Injury Prevention and Research Center has determined the effectiveness of bicycle helmets (see above). The key now is to make them acceptable, available and correctly fitted for the public.*
- *The United States Coast Guard has stated that 85% of drownings may have been prevented, if the people had been wearing life jackets. Promotion of life jackets to prevent brain anoxia and long term disability is a viable endeavor.*
- *Minors in Prevention is a diversion program for first-time youth drug/alcohol offenders. These offenders are court-ordered to attend, and mentored through a visit to the coroners office, emergency department, ICU, and rehabilitation center. The recidivism rate is less than 5%.*

Data collected through the EMS/Trauma Care system should be used to determine where prevention programs should be provided.

The regional and state prevention programs use injury fatality data, non-fatal injury hospitalizations data, traffic injury data from Washington Traffic Safety Commission, as well as data from other sources and special studies. Updated data is provided to the regions broken out by county and by EMS region. The regional IPPE committees in turn use the data to help determine the IPPE work plan for each fiscal year.

A trauma prevention specialist should be employed within the Office of EM/TP to develop prevention strategies and to act as a trainer, an educator and a consultant.

The state office currently employs a full time Injury Prevention Specialist; and through contract, supports at least a half-time injury prevention/public education coordinator in each region. The state Injury Prevention Specialist provides consultation, technical assistance, resources, materials and training to the regional prevention coordinators. Regional Coordinators are also appointed members of the IPPE TAC.

A Basic First Aid Course should be taught as part of, or required for, completion of all Traffic Safety Education Courses and Driver Training Courses taught in Washington State

No action has been taken to date.

The burden of providing sufficient manpower [for prehospital emergency care] should be born by the counties, its agencies and providers. This may be done by the use of police and fire agencies, private providers, rescue groups, or state and federal agencies operating within the state.

While provision of "raw manpower" for prehospital service is a local responsibility, DOH recognizes training in the skills required to provide good emergency care is a shared state and local obligation. Each region receives approximately \$100,000 per year for community based training, and \$10,000 for education of hospital-based personnel.

Level I and II Trauma Centers should be required to participate in continuing education skills maintenance programs for prehospital personnel and Level III should be encouraged to participate.

Designated Levels I and II trauma hospitals (General and Pediatric) are required by WAC to offer outreach educational programs for prehospital personnel. Levels I, II, and III facilities must allow prehospital ALS personnel to practice invasive techniques, to assist

them in meeting their skills maintenance requirements for recertification. These programs are intended to operate in coordination with initial and continuing education courses supplied from other sources.

The state should implement statewide on-site training programs, such as the training van and the state-owned earth/satellite-based instruction for prehospital personnel certified as First Responders and above. Trauma training should be offered on a statewide basis. Implementation of trauma education should not further burden already stressed prehospital providers.

Education is the best way to correct deficiencies in the system and should be directed at all levels of the health care system.

A nationally recognized community outreach mobile training program provides continuing medical education to First Responders, EMTs and Paramedics. Since July of 1990 over 5000 community based/on-site medical education classes have been taught. These rural training programs have reached over 80,000 prehospital providers.

Prehospital providers utilize an increased cadre of qualified EMS and trauma instructors. Most regions continue to identify a need for an increased number of qualified instructors, and many are addressing this through additional instructor workshops.

Gaining in acceptance and popularity is interactive video disk training. Several regions identified this training format as worthy of funding.

The state should provide on-site training programs free-of-charge to providers.

In the majority of cases trauma system funded training has been free of charge. Regions have indicated a need to charge registration fees for PHTLS courses, since it is expensive, especially for areas with significant numbers of EMS personnel needing trauma training. To reduce costs, several regions plan to offer "PHTLS equivalent" training.

Each region must be provided with a full set of current training materials (audio/visual, mannequins, etc.) available for loan to provider groups.

Assessing the need for training materials is an ongoing process. Regions have established and made available training materials either through regional or local EMS and Trauma Care Councils. Some regions are developing resource libraries of videotapes, slides, books and other materials. The state continues to serve as a clearinghouse for initial training curricula.

Prehospital personnel shall be trained to evaluate, assess and manage pediatric patients.

Emergency Medical Services for Children (EMS-C), Pediatric Prehospital Care Course (PPC), Pediatric Advanced Life Support (PALS), and a significant number of pediatric CME classes are offered statewide. Regions conduct regular assessments to determine current pediatric training.

Senior EMT Instructors (SEIs) should be required to become Prehospital Trauma Life Support Instructors. This should be phased in over a three-year period.

During the WAC public work sessions, regional training representatives (with state concurrence) did not see a need for SEIs to be PHTLS Instructors.

The state should offer Prehospital Trauma Life Support (PHTLS) Instructor Training at the state EMS Conference every three years.

PHTLS instructor training occurs at the regional and local level and is based on assessment of need. The need for PHTLS Instructor Training has diminished due to the prevalence of trauma equivalency programs and the integration of trauma training in initial EMT-B training.

The state on-site training program should offer PHTLS:

- Modules in lieu of the standard EMT modules once in every three-year certification period;
- In both modular form and as a two-day course to all communities they serve.

Level I & II Trauma Centers should provide PHTLS outreach programs.

The state should offer PHTLS as an alternate means of satisfying continuing education and certification requirements for all levels of prehospital personnel.

DOH has established a set of Trauma education and training objectives. Regions wishing to "modularize" ongoing PHTLS or trauma equivalent training may do so. For one certification period, EMS personnel may substitute hour-for-hour an approved trauma training program as an alternative means of satisfying CME requirements.

While WAC does not specifically indicate PHTLS, level I & II designated trauma services are required to provide a formal program of continuing trauma education for prehospital providers.

Incorporate EMS and First Responder recertification/evaluation within the Trauma Course.

Trauma education objectives are established under the "Ongoing Training and Evaluation Program". The department supports and encourages this method of recertification/evaluation.

Rescue personnel, law enforcement personnel, fire fighters and other organized responders that can and do assist with traumatized patients, should be minimally certified to the level of First Responder.

DOH continues to support this recommendation. In 1991 an effort was made to change RCW to require (1) First Responder and (1) EMT as the minimum staffing level for ambulance licensure. This effort failed to make it through the legislature. Revised WAC recognizes this recommendation through the process of verification, although it was not adopted for basic licensure. Due to budget constraints, the Washington State Patrol has elected not to train new cadets to the level of First Responder.

The designation of EMT-Wilderness should be adopted as part of the emergency medical response system.

DOH accepts this recommendation and is in the process of approving wilderness curricula and updating training application forms.

The state or Level I and II hospitals will likely need to subsidize education in rural areas by providing temporary personnel and financial support.

DOH recognizes the critical shortage of health care providers in rural communities. Since 1990 DOH has provided funding to over 400 physicians, nurses and other allied health care professions for course work in Advanced Trauma Life Support, Trauma Nurse Critical Care, Pediatric Advanced Life Support, and Advanced Cardiac Life Support. DOH's Office of Community and Rural Health operates a locum tenens referral program with rural clinics, hospitals and physicians in need of temporary assistance. The program is available for any type of needed leave, such as coverage for vacations, attending to personal matters, attending continuing education courses and recovering from an illness.

Statewide guidelines for the coordination of communications of the EMS and Trauma Care System should be developed.

Guidelines have been developed and distributed.

Existing and functioning prehospital communications systems should be allowed to continue to serve each jurisdiction until such time as upgrading takes place. The upgraded system must be compatible with the statewide system.

Emerging technology allows our communities to be able to utilize existing and functioning systems until an upgrade or change becomes necessary and financially feasible.

There should be a statewide 9-1-1 system with adequate funding criteria.

The 1991 legislature enacted a law mandating E-911 service throughout the state by 1998, and enabling counties and the state to levy an excise tax on switched telephone access lines to support the development of the system.

A coordinated dispatch system on an area or regional basis that would be responsible for dispatching the closest, most appropriate unit to scene should be established.

The state does not have authority to directly control dispatch coordination. Regional councils, in conjunction with emergency communications centers, are required to develop Patient Care Procedures which include guidelines for the delivery of appropriate response and level of services. These procedures are submitted to DOH for approval. The actual implementation takes place at the local level.

Primary-response medical dispatchers (9-1-1 or equivalent) for EMS/Trauma calls should meet Department of Transportation (DOT) training standards for dispatchers.

Although the department does not have the authority to require dispatchers or their employers to meet DOT training standards, DOH has developed and published training guidelines for dispatchers involved in primary medical response.

A statewide emergency medical services and trauma care communications system should be developed that allows communication between all regional trauma care providers, regardless of level.

DOH is named in RCW 70.168 as the agency to develop and coordinate an EMS/TC medical communicants system. The department is working with other state agencies on this system design and support. Even though funding for this activity has been suspended,

DOH will continue working with the regions to improve the effectiveness of the system. Regional Councils are required to address communications at the regional level in their EMS and TC System Plans.

A communications system which provides around-the-clock, on-line consultation for the physician faced with a difficult pediatric patient should be developed.

The telephone is still the routine mode of communications except in disaster situations. Current planning is for a system that is more regionally focused that may extend to neighboring regions, if necessary.

Transport protocols should ensure that patients who meet triage criteria will be transported directly to a Level I or Level II trauma hospital as appropriate.

Trauma Triage protocols have been adopted which assume transport to highest level facility within 30 minutes. Regional Patient Care Procedures are in place in every region.

Appropriate equipment for pediatrics should be maintained on EMS vehicles.

Specific pediatric equipment has been identified to be included on verified aid and ambulance vehicles and currently 483 out of 517 services are verified.

Two people should be in the patient compartment of an ALS-equipped transfer vehicle when transporting pediatric trauma patients meeting Level I or II acuity transport guidelines.

This was not adopted as a WAC requirement. However, it is still a recommendation for pediatric transport/transfer units.

Pediatric transport teams, [as defined in this report,] shall be used for interfacility transport of critically injured pediatric patients.

The administrative code does not specifically address pediatric transport team staffing requirements. Hospitals and health care facilities and the physicians will bear the burden of determining the appropriate transport for all patients. WAC requires that all facilities have policies, procedures and protocols in place for interfacility transfer and that they must use a verified trauma prehospital provider agency to transfer trauma patients.

A survey form and on-site visitations should be designed for determining that a provider's overall operations are in substantial compliance with Washington State statutes that regulate ambulance service operations in an officially identified ambulance service area.

RCW 70.168 established a program of verification, which was further defined in administrative code to include a process, which coincides with the licensing process. This includes the "verification" that the agency is in compliance with standards defined in statute, WAC and regional plans.

The Armed Forces Command should examine the benefits of allowing greater participation and integration of their resources in the development of trauma systems.

Representatives from military medical facilities in Washington State have been appointed by the Governor to sit on the EMS and Trauma Care Steering Committee and have been appointed by the Secretary of the Department of Health to participate with Regional Planning and system development efforts.

Ambulances shall be staffed with a minimum of one EMT and one First Responder, with the EMT in the patient compartment.

In 1991 an effort was made to change RCW 18.73.150 to require (1) First Responder and (1) EMT as the minimum staffing level for ambulance licensure. This effort failed to make it through the legislature. Current minimum staffing levels for ambulance licensure requires (1) EMT and (1) recognized in advanced first aid. Current minimum staffing levels for ambulance verification requires (1) first responder and (1) EMT.

Ambulance response-time standards, as detailed in [WAC], shall be used by service providers.

Standards for response times for verified prehospital providers were adopted in administrative code and have been included in the plans developed by the regional councils in their assessment of need and recommendations for the distribution and levels of prehospital providers needed in their region.

The standards developed by the Hospital Resources/Facilities Standards Subcommittee should be used by the Emergency Medical Services and Trauma Care System.

The standards developed by the Hospital Resources/Facility Standards Subcommittee were used as the foundation for drafting the administrative code. Every attempt was made to maintain the intent of those recommendations during the public process used for developing the WAC.

"Designation" shall be the process used to identify hospitals participating in the emergency medical services and trauma care system. Five levels of [general] trauma facilities, three levels of pediatric trauma facilities, and four levels of rehabilitation facilities shall be recognized.

The EMS and Trauma Care Act of 1990 (RCW 70.168) mandated "Designation as the process used to identify hospitals and other health care facilities who shall participate in the statewide system". That same law mandated the recommended levels of facilities needed for general, pediatric and rehabilitative services.

General trauma hospitals shall meet the Emergency Department requirements for pediatric trauma patients as established by this report.

All designated trauma care services are required to provide and meet the standards identified in the report and codified in the WAC for pediatric services.

All trauma-care facilities should be prepared to provide initial stabilization and resuscitation of pediatric patients with major trauma at a level similar to its general trauma designation.

The administrative code incorporates this requirement for all designated trauma facilities.

Appropriate equipment for pediatrics should be maintained ... in Emergency Departments and in ICU's and operating rooms that treat pediatric patients.

Required pediatric-specific equipment is identified in administrative code for all three of these identified areas.

Each participating hospital shall have written clinical protocols to address the special needs of trauma patients.

The Administrative Code requires participating hospitals and health care facilities to develop written protocols, policies and procedures to address the special needs of trauma patients.

Criteria should be developed to identify patients who should be transferred to a Level I or II trauma center or to a specialty care center.

The 1990 Report to the Legislature identified a list of injuries that are at high risk for death or disability and should be considered for transfer to a Level I or II Trauma Care Facility. After considerable discussion these were not adopted into WAC. Instead, a "trauma triage tool" was developed for prehospital activation of the trauma system, and hospitals were charged with the responsibility of developing a written policy for transferring specific types of trauma patients to the appropriate facility.

All hospitals shall have protocols and written transfer agreements for the identification and transfer of appropriate trauma patients.

Each designated trauma facility is required to develop policies and procedures for immediate stabilization of trauma patients (including pediatric patients), and for continued treatment or transfer to other facilities as medically appropriate. Interfacility transfer is also a component of the Regional Plan. COBRA is a major consideration in development of these transfer policies. Although not strictly "transfer", each designated facility and Regional Plan must also include policies and procedures for diverting patients away from a particular facility when their expected capabilities are not available.

The rehabilitation component of the state emergency medical services and trauma care system shall be integrated with the total system in such a way that ensures rehabilitation management in both the acute and post-acute phases.

The WAC requires coordination of rehabilitative services in both the acute and post acute phases of injury care.

All facilities receiving trauma patients should have a rehabilitation facility or should have continuous, interactive consultation with a specific designated rehabilitation facility.

The WAC requires that all hospitals and health care facilities designated to provide trauma care services shall provide rehabilitation services in their institutions or transfer these patients to other facilities.

A centralized, statewide trauma registry database should be developed, maintained and adequately funded. All trauma-system data should be linked by a common patient identifier.

Data elements and the inclusion criteria for the state trauma registry were developed by the Governor's Steering Committee's Data TAC and have been adopted in WAC. The trauma registry includes the participation of 85 hospital and 250 prehospital providers.

Mandatory, uniform data reporting on each trauma patient from both prehospital and hospital care providers. All hospitals should provide a minimum data set to include E-

codes, and [designated] trauma hospitals should provide a more extensive data set to the trauma registry.

The administrative code includes a minimum data set for both prehospital and designated hospital and health care facility providers. It does include E-codes. The minimum data set from non-designated facilities has been identified to come from other existing data collection systems such as CHARS.

Hospitals joining the trauma system should be required to maintain a trauma registry and supply a complete database to the centralized trauma registry.

As defined in statute and WAC, all hospitals and health care facilities designated to provide trauma care services shall maintain a trauma registry and provide data to the central registry.

Mandatory autopsies of all fatal injuries should be required. The autopsy must be by a qualified examiner.

This recommendation was not included in the 1990 EMS and Trauma System Act due to the high cost associated with the employment of Medical Examiners and the fact that a majority of the counties did not currently have one.

Each regional council should establish a system to monitor the effectiveness of the ambulance service operators providing EMS/Trauma Care in their region.

While the term "Ambulance Service Operator" no longer exists and has been removed from statute, the effectiveness of each EMS and Trauma Region is addressed in the regional plans submitted to the Department of Health biennially.

¹ "Washington State Trauma Project: Final report to the Washington State Legislature," Washington State Trauma Advisory Committee, Department of Health, January, 1990.

² Division of Trauma and Emergency Medical Services, Health Resources and Services Administration, U.S. Department of Health and Human Services, September 30, 1992.

Appendices

Appendix A

TRAUMA TRIAGE TOOL

**STATE OF WASHINGTON
PREHOSPITAL TRAUMA TRIAGE (DESTINATION) PROCEDURE**

Purpose

The purpose of the Triage Procedure is to ensure that major trauma patients are transported to the most appropriate hospital facility. This procedure has been developed by the Prehospital Technical Advisory Committee (TAC), endorsed by the Governor's EMS and Trauma Care Steering Committee, and in accordance with RCW 70.168 and WAC 246-976 adopted by the Department of Health (DOH).

The procedure is described in the schematic with narrative. Its purpose is to provide the prehospital provider with quick identification of a major trauma victim. If the patient is a major trauma patient, that patient or patients must be taken to the highest level trauma facility within 30 minutes transport time, by either ground or air. To determine whether an injury is major trauma, the prehospital provider shall conduct the patient assessment process according to the trauma triage procedures.

Explanation of Process

- A. **Any certified EMS and Trauma person can identify a major trauma patient and activate the trauma system.** This may include requesting more advanced prehospital services or aero-medical evacuation.
- B. **The first step (1) is to assess the vital signs and level of consciousness.** The words "Altered mental status" mean anyone with an altered neurologic exam ranging from completely unconscious, to someone who responds to painful stimuli only, or a verbal response which is confused, or an abnormal motor response.

The "and/or" conditions in Step 1 mean that any one of the entities listed in Step 1 can activate the trauma system.

Also, the asterisk (*) means that if the airway is in jeopardy and the on-scene person cannot effectively manage the airway, the patient should be taken to the nearest medical facility or consider meeting up with an ALS unit. These factors are true regardless of the assessment of other vital signs and level of consciousness.

- C. **The second step (2) is to assess the anatomy of injury.** The specific injuries noted require activation of the trauma system. Even in the assessment of normal vital signs or normal levels of consciousness, the presence of any of the specific anatomical injuries does require activation of the trauma system.

Please note that steps 1 and 2 also require notifying Medical Control.

- D. **The third step (3) for the prehospital provider is to assess the biomechanics of the injury and address other risk factors.** The conditions identified are reasons for the provider to contact and consult with Medical Control regarding the need to activate the system. They do not automatically require system activation by the prehospital provider.

Other risk factors, coupled with a "gut feeling" of severe injury, means that Medical Control should be consulted and consideration given to transporting the patient to the nearest trauma facility.

Please note that certain burn patients (in addition to those listed in Step 2) should be considered for immediate transport or referral to a burn center/unit.

Patient Care Procedures

To the right of the attached schematic you will find the words "according to DOH-approved regional patient care procedures." These procedures are developed by the regional EMS and Trauma council in conjunction with local councils. They are intended to further define how the system is to operate. They identify the level of medical care personnel who participate in the system, their roles in the system, and participation of hospital facilities in the system. They also address the issue of inter-hospital transfer, by transfer agreements for identification, and transfer of critical care patients.

In summary, the Prehospital Trauma Triage Procedure and the Regional Patient Care Procedures are intended to work in a "hand in glove" fashion to effectively address EMS and Trauma patient care needs. By functioning in this manner, these two instruments can effectively reduce morbidity and mortality.

If you have any questions on the use of either instrument, you should bring them to the attention of your local or regional EMS and Trauma council or contact 1-800-458-5281.

1994/Disc 1/triage.exp

**STATE OF WASHINGTON
PREHOSPITAL TRAUMA TRIAGE (DESTINATION) PROCEDURES
EFFECTIVE DATE 1/95**

- Prehospital triage is based on the following 3 steps: **Steps 1 and 2 require prehospital EMS personnel to notify medical control and activate the Trauma System. Activation of the Trauma System in Step 3 is determined by medical control****

**STEP 1
ASSESS VITAL SIGNS & LEVEL OF CONSCIOUSNESS**

- Systolic BP <90*
- HR >120*
- * for pediatric (<15y) pts. use BP <90 or capillary refill >2 sec.
- * for pediatric (<15y) pts. use HR <60 or >120

Any of the above vital signs associated with signs and symptoms of shock
and/or

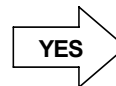
- Respiratory Rate <10 >29 associated with evidence of distress
and/or
- Altered mental status

**If prehospital personnel are unable to effectively manage airway, consider rendezvous with ALS, or intermediate stop at nearest facility capable of immediate definitive airway management.



**STEP 2
ASSESS ANATOMY OF INJURY**

- Penetrating injury of head, neck, torso, groin; OR
- Combination of burns ≥ 20% or involving face or airway; OR
- Amputation above wrist or ankle; OR
- Spinal cord injury; OR
- Flail chest; OR
- Two or more obvious proximal long bone fractures.

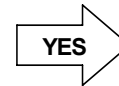
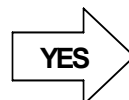


**STEP 3
ASSESS BIOMECHANICS OF INJURY AND
OTHER RISK FACTORS**

- Death of same car occupant; OR
- Ejection of patient from enclosed vehicle; OR
- Falls ≥ 20 feet; OR
- Pedestrian hit at ≥ 20 mph or thrown 15 feet
- High energy transfer situation
 - Rollover
 - Motorcycle, ATV, bicycle accident
 - Extrication time of > 20 minutes
- Extremes of age <15 >60
- Hostile environment (extremes of heat or cold)
- Medical illness (such as COPD, CHF, renal failure, etc.)
- Second/third trimester pregnancy
- Gut feeling of medic

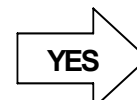


**CONTACT
MEDICAL
CONTROL
FOR
DESTINATION
DECISION**



1. Take patient to the highest level trauma center within 30 minutes transport time via ground or air transport according to DOH approved regional patient care procedures.

2. Apply "Trauma ID Band" to patient.



1. Take patient to the highest level trauma center within 30 minutes transport time via ground or air transport according to DOH approved regional patient care procedures.

2. Apply "Trauma ID Band" to patient

TRANSPORT PATIENT PER REGIONAL PATIENT CARE PROCEDURES

Appendix B

EMS PERSONNEL BY COUNTY/REGION (As of April 2001)

Number of Certified Personnel by County/Region

	FR	EMT	IV	AW	IV/AW	ILS	ILS/AW	*PM	TOTALS
CENTRAL REGION									
King County	107	3379	1	0	0	0	0	4	3491
CENTRAL TOTALS	107	3379	1	0	0	0	0	4	3491
EAST REGION									
Adams County	1	53	0	0	0	0	0	0	54
Asotin County	0	27	0	0	2	0	0	6	35
Ferry County	3	49	0	0	0	0	2	0	54
Garfield County	5	15	0	0	1	0	0	0	21
Lincoln County	18	84	7	0	0	10	0	0	119
Pend Oreille County	22	60	6	0	2	0	9	5	104
Spokane County	139	1015	29	0	3	18	10	155	1369
Stevens County	40	133	20	0	0	14	1	0	208
Whitman County	61	157	9	0	5	5	9	8	254
Idaho STATE	0	11	23	0	1	0	0	18	53
EAST TOTALS	289	1604	94	0	14	47	31	192	2271
NORTH REGION									
Island County	35	231	0	0	0	0	0	19	285
San Juan County	10	99	0	0	0	0	0	9	118
Skagit County	107	239	6	0	0	0	0	37	389
Snohomish County	133	942	27	0	0	10	0	132	1244
Whatcom County	186	473	1	0	2	1	12	43	718
NORTH TOTALS	471	1984	34	0	2	11	12	240	2754
NORTH CENTRAL REGION									
Chelan County	37	184	39	0	1	0	0	31	292
Douglas County	28	59	7	0	0	0	0	0	94
Grant County	74	154	13	0	1	3	14	13	272
Okanogan County	11	136	6	0	0	2	8	4	167
NORTH CENTRAL TOTALS	150	533	65	0	2	5	22	48	825
NORTHWEST REGION									
Clallam County	11	216	15	0	4	4	0	28	278
Jefferson County	12	70	20	0	0	15	0	10	127
Kitsap County	15	492	37	0	0	0	0	58	602
Mason County	30	129	27	0	1	0	0	21	208
NORTHWEST TOTALS	68	907	99	0	5	19	0	117	1215

Number of Certified Personnel by County/Region Continued

	FR	EMT	IV	AW	IV/AW	ILS	ILS/AW	*PM	TOTALS
SOUTH CENTRAL REGION									
Benton County	121	296	13	0	0	12	1	67	510
Columbia County	13	23	0	1	1	0	0	0	38
Franklin County	20	97	0	0	1	4	1	12	135
Kittitas County	26	75	3	0	0	0	0	14	118
Walla Walla County	31	133	11	2	2	0	0	25	204
Yakima County	140	385	16	0	8	7	5	57	618
SOUTH CENTRAL TOTALS	351	1009	43	3	12	23	7	175	1623
SOUTHWEST REGION									
Clark County	155	328	45	0	20	0	0	153	701
Cowlitz County	74	151	40	0	1	0	0	28	294
Klickitat County	51	50	1	0	2	0	1	14	119
Pacific County	34	50	16	0	5	0	0	21	126
Skamania County	5	25	3	0	2	0	1	6	42
Wahkiakum County	3	35	5	0	0	0	0	3	46
Oregon STATE	0	5	0	0	0	0	0	0	5
SOUTHWEST TOTALS	322	644	110	0	30	0	2	225	1333
WEST REGION									
Grays Harbor County	103	205	40	0	0	0	3	54	405
Lewis County	27	234	0	0	2	0	0	23	286
Pierce County	82	1382	8	0	0	0	0	318	1790
Thurston County	32	389	0	0	0	0	1	43	465
WEST TOTALS	244	2210	48	0	2	0	4	438	2946
GRAND TOTALS	2002	12270	494	3	67	105	78	1439	16458

*Paramedics (PM) in the Central Region are also certified by the University of Washington. Contact the UW Paramedic Training Program for information on the number of current UW Paramedics at 206-731-3489.

Legend:

FR.....First Responder

EMT.....Emergency Medical Technician – Basic

IV.....Intravenous Therapy Technician

AW.....Endotracheal Intubation Airway Technician

IV/AW.....Combined IV and Airway skills

ILS.....Intermediate Life Support Technician

ILS/AW.....ILS with Endotracheal Intubation Airway skills

PM.....Paramedic

Appendix C

LICENSED/VERIFIED SERVICES

(As of April 2001)

EMS Services and Vehicles by County

Number of Agencies.....			Number of Vehicles.....			
	Licensed Aid	Licensed Ambulance	Verified Aid	Verified Ambulance	TOTAL	Aid Vehicles	Ground Ambulance	Air Ambulance
CENTRAL REGION								
KING	1	4	8	30	43	150	248	11
C Region Total	1	4	8	30	43	150	248	11
CENTRAL REGION BREAKDOWN BY LEVEL OF CARE:								
BLS	1	4	8	24	37	0	1	0
ILS	0	0	0	0	0	0	0	0
ALS	0	0	0	6	6	0	0	0
EAST REGION								
ADAMS	0	0	0	2	2	0	6	1
ASOTIN	0	0	1	0	1	3	0	0
FERRY	0	0	0	2	2	0	7	0
GARFIELD	0	0	0	1	1	0	2	0
LINCOLN	0	1	2	5	8	4	8	1
PEND ORIELLE	0	0	7	3	10	15	8	0
SPOKANE	0	0	16	4	20	132	25	6
STEVENS	0	0	3	3	6	12	10	0
WHITMAN	0	0	11	7	18	16	10	0
IDAHO	0	1	0	1	2	2	9	0
E Region Total	0	2	40	28	70	184	85	8
EAST REGION BREAKDOWN BY LEVEL OF CARE:								
BLS	0	1	36	23	60	0	0	0
ILS	0	0	1	1	2	0	0	0
ALS	0	0	3	4	7	0	0	0
NORTH REGION								
ISLAND	0	0	6	2	8	18	16	0
SAN JUAN	0	1	1	3	5	2	8	2
SKAGIT	3	0	18	4	25	56	15	0
SNOHOMISH	1	1	11	25	38	55	175	15
WHATCOM	2	1	5	14	22	38	41	1
N Region Total	6	3	41	48	98	169	255	18
NORTH REGION BREAKDOWN BY LEVEL OF CARE:								
BLS	6	1	41	31	79	0	0	0
ILS	0	0	0	0	0	0	0	0
ALS	0	2	0	17	19	0	0	1
NORTH CENTRAL REGION								
CHELAN	1	0	5	7	13	32	21	15
DOUGLAS	1	0	1	3	5	5	8	0
GRANT	2	0	6	10	18	35	22	8
OKANOGAN	1	0	2	7	10	12	22	5
NC Region Total	5	0	14	27	46	84	73	28
NORTH CENTRAL REGION BREAKDOWN BY LEVEL OF CARE:								
BLS	4	0	14	17	35	0	0	0
ILS	0	0	0	1	1	0	0	0
ALS	0	0	0	9	9	0	4	5

EMS Services and Vehicles by County

Number of AgenciesNumber of Vehicles.		
	Licensed Aid	Licensed Ambulance	Verified Aid	Verified Ambulance	TOTAL	Aid Vehicles	Ground Ambulance	Air Ambulance
NORTHWEST REGION								
CLALLAM	0	0	2	6	8	12	18	0
JEFFERSON	0	0	2	6	8	13	15	0
KITSAP	0	2	1	10	13	2	47	0
MASON	0	0	8	7	15	19	21	0
NW Region Total	0	2	13	29	44	46	101	0
NORTHWEST REGION BREAKDOWN BY LEVEL OF CARE:								
BLS	0	2	12	17	31	0	0	0
ILS	0	0	0	0	0	0	0	0
ALS	0	0	1	12	13	0	4	0
SOUTH CENTRAL REGION								
BENTON	0	1	2	7	10	11	30	0
COLUMBIA	1	0	2	1	4	3	2	0
FRANKLIN	0	0	1	4	5	7	11	1
KITTITAS	0	0	5	4	9	8	9	0
WALLA WALLA	0	0	6	4	10	13	10	0
YAKIMA	0	0	18	5	23	85	24	6
SC Region Total	1	1	34	25	61	127	86	7
SOUTH CENTRAL REGION BREAKDOWN BY LEVEL OF CARE:								
BLS	1	1	34	8	44	0	0	0
ILS	0	0	0	3	3	0	0	0
ALS	0	0	0	14	14	0	0	6
SOUTHWEST REGION								
CLARK	0	0	7	4	11	60	21	0
COWLITZ	0	1	5	5	11	24	22	0
Klickitat	0	0	8	4	12	8	8	0
PACIFIC	1	1	1	3	6	6	14	0
SKAMANIA	1	0	1	1	3	4	3	0
WAHKIAKUM	0	0	0	3	3	1	6	0
SW Region Total	2	2	22	20	46	103	74	0
SOUTHWEST REGION BREAKDOWN BY LEVEL OF CARE:								
BLS	2	2	20	6	30	1	3	0
ILS	0	0	0	1	1	0	0	0
ALS	0	0	2	13	15	0	0	0
WEST REGION								
GRAYS HARBOR	0	0	11	9	20	25	27	0
LEWIS	1	2	3	11	17	25	29	0
PIERCE	0	4	14	19	37	143	107	11
THURSTON	1	0	8	10	19	51	28	0
W Region Total	2	6	36	49	93	241	191	11
WEST REGION BREAKDOWN BY LEVEL OF CARE:								
BLS	2	6	36	22	66	0	6	0
ILS	0	0	0	2	2	0	0	0
ALS	0	0	0	25	25	0	0	0
GRAND TOTALS	17	20	208	256	501	1104	1113	83

Appendix D

DESIGNATED TRAUMA CARE SERVICES

Washington State Designated Trauma Care Services (as of November 2000)

Designated Level			
	I	I-P	Harborview Medical Center Seattle
Central Region	III		Auburn General Hospital Auburn
	III		Overlake Hospital Medical Center Bellevue
	III		Valley Medical Center Renton
	IV		Evergreen Hospital Medical Center Kirkland
	IV		Highline Community Hospital Burien
	IV		Northwest Hospital Seattle
	IV		St Francis Community Hospital Federal Way
East Region	II	II-P	Spokane Joint Trauma Services Spokane
			Deaconess Medical Center & Sacred Heart Medical Center
	II	III-P	St Joseph Regional Medical Center Lewiston, Idaho
	III		Holy Family Hospital Spokane
	III		Pullman Memorial Hospital Pullman
	III		Valley Hospital & Medical Center Spokane
	IV		Deer Park Health Center & Hospital Deer Park
	IV		Lincoln Hospital Davenport
	IV		Mount Carmel Hospital Colville
	IV		Newport Community Hospital Newport
	IV		St Joseph's Hospital of Chewelah Chewelah
	IV		Tri-State Memorial Hospital Clarkston
	V		East Adams Rural Hospital Ritzville
	V		Ferry County Memorial Hospital Republic
	V		Garfield County Hospital District Pomeroy
	V		Odessa Memorial Hospital Odessa
	V		Othello Community Hospital Othello
	V		Whitman Hospital and Medical Center Colfax
North Region	II		St Joseph Hospital Bellingham
	III		Island Hospital Anacortes
	III		Providence General Medical Center Everett
	III		Skagit Valley Hospital Mt Vernon
	III		Whidbey General Hospital Coupeville
	IV		Cascade Valley Hospital Arlington
	IV		Valley General Hospital Monroe
	V		Darrington Clinic Darrington
	V		Inter-Island Medical Center Friday Harbor
North Central Region	II	III-P	Central Washington Hospital Wenatchee
	IV		Lake Chelan Community Hospital Chelan
	IV		Mid-Valley Hospital Omak
	IV		North Valley Hospital Tonasket
	IV		Okanogan-Douglas County Hospital Brewster
	IV		Samaritan Hospital Moses Lake
	V		Cascade Medical Center Leavenworth
	V		Columbia Basin Hospital Ephrata
	V		Coulee Community Hospital Grand Coulee
	V		Quincy Valley Hospital Quincy

P = Pediatric Trauma Service

Designated
Level

Northwest Region

III		Harrison Memorial Hospital	Bremerton
III		Olympic Medical Center	Port Angeles
IV		Forks Community Hospital	Forks
IV		Jefferson General Hospital	Port Townsend
IV		Mason General Hospital	Shelton

South Central Region

II	III-P	St Mary Medical Center	Walla Walla
III		Sunnyside Community Hospital	Sunnyside
III		Tri-Cities Trauma Service	Tri-Cities
		Kadlec Medical Center, Kennewick General Hospital & Lourdes Medical Center	
III		Walla Walla General Hospital	Walla Walla
III	III-P	Yakima Valley Trauma Service	Yakima
		Providence Yakima Medical Center & Yakima Valley Memorial Hospital	
IV		Kittitas Valley Community Hospital	Ellensburg
IV		Prosser Memorial Hospital	Prosser
IV		Providence Toppenish Hospital	Toppenish
V		Dayton General Hospital	Dayton
V		Kittitas County Hospital District #2	Cle Elum

Southwest Region

II		Southwest Washington Medical Center	Vancouver
III		St John Medical Center	Longview
IV		Klickitat Valley Hospital	Goldendale
IV		Ocean Beach Hospital	Ilwaco
IV		Skyline Hospital	White Salmon


West Region

II		Madigan Army Medical Center	Fort Lewis
II		Tacoma Trauma Center-Adult Services	Tacoma
		St. Joseph Medical Center & Tacoma General Hospital	
III		Good Samaritan Community Healthcare	Puyallup
III		Grays Harbor Community Hospital	Aberdeen
III		Providence St Peter Hospital	Olympia
IV		Capital Medical Center	Olympia
IV		Lewis County Hospital District #1	Morton
IV		Providence Centralia Hospital	Centralia
IV		St. Clair Hospital	Tacoma
IV		Willapa Harbor Hospital	South Bend
V		Mark Reed Hospital	McCleary
	II-P	Mary Bridge Children's Hospital	Tacoma

P = Pediatric Trauma Service

**There are currently 82 designated acute care trauma services
7 of which provide definitive pediatric trauma care**

Washington State Designated Trauma Rehabilitation Services (as of December 1998)

Region	Designation		Facility	City
Statewide Resources	I-R		HMC/UWMC Trauma Rehabilitation Service Harborview Medical Center, University of Washington Medical Center	Seattle
		I-RP	Children's Hospital & Regional Medical Center	Seattle
	I-R	I-RP	Heath Rehabilitation Center at Good Samaritan Hospital	Puyallup
	I-R		Legacy Rehabilitation Services, Rehabilitation Institute of Oregon	Portland
		I-RP	Legacy Emanuel Children's Hospital, Pediatric Development & Rehabilitation	Portland
	I-R	I-RP	St Luke's Rehabilitation Institute	Spokane
				
Central	I-R		HMC/UWMC Trauma Rehabilitation Service Harborview Medical Center, University of Washington Medical Center	Seattle
		I-RP	Children's Hospital & Regional Medical Center	Seattle
	II-R		Northwest Hospital Rehabilitation Unit	Seattle
	II-R		Providence Seattle Medical Center Comprehensive Acute Rehabilitation Unit	Seattle
	III-R		Valley Medical Center Rehabilitation Services	Renton
East	I-R	I-RP	St Luke's Rehabilitation Institute	Spokane
North	II-R		Providence General Medical Center Rehabilitation Services	Everett
North Central	II-R		Cascade Medical Center	Wenatchee
Northwest	III-R		Green Mountain Rehabilitation Medicine	Bremerton
South Central	II-R		Turning Point Rehabilitation at St Mary Medical Center	Walla Walla
	II-R		Lourdes Medical Center Inpatient Rehabilitation Unit	Pasco
	II-R		Providence Yakima Medical Center Rehabilitation Unit	Yakima
Southwest	I-R		Legacy Rehabilitation Services, Rehabilitation Institute of Oregon	Portland
		I-RP	Legacy Emanuel Children's Hospital, Pediatric Development & Rehabilitation	Portland
	II-R		Southwest Washington Medical Center	Vancouver
	III-R		St John Medical Center	Longview
West	I-R	I-RP	Heath Rehabilitation Center at Good Samaritan Hospital	Puyallup
	II-R		St Joseph Medical Center Inpatient Rehabilitation	Tacoma
	II-R		Providence St Peter Hospital Medical Rehabilitation Program	Olympia
	III-R		Providence Centralia Hospital	Centralia
Total	18	4	R = Trauma Rehabilitation Care P = Pediatric	

Appendix E

REGIONAL PLAN SUMMARIES

CENTRAL REGION

EXECUTIVE SUMMARY

The Central Region EMS and Trauma Care Council has developed an EMS and Trauma Plan for FY 00-01. The Plan reflects the needs of the Region and the accomplishments of previous plans. Each system component has been incorporated into the Plan and goals and strategies identified. The Council has committed State and local funds to meet these goals.

Demographics

The Central Region is highly urbanized, densely populated, and increasingly congested area. Seattle and the 37 suburban cities of King County account for 76% of the King County's population of 1,665,500 (est.). The population density of the incorporated areas of King County is 2,741 persons per square mile. Many unincorporated also have dense populations but remain outside city limits. Traffic congestion in King County ranks among the worst in the nation and is a growing problem in the delivery of emergency medical services.

Socioeconomic and cultural issues present barriers to health care for many residents in the Central Region. The ability of the EMS and trauma system to serve a "safety net" may be tested in the near future.

Regional Council

The Central Region Trauma EMS and Trauma Care Council was established by the Washington State EMS and Trauma Care System Act of 1990. Members of the Council include representatives from the Region's EMS providers, law enforcement, local government, and private agencies.

The Council's unique relationship with the EMS division of Public Health - Seattle and King County provides access to a well-established resource base and opportunity to provide input regarding policies of the EMS system of Seattle and King County.

System Development

The Regional Council has benefited from a mature EMS system and the considerable healthcare facilities of Seattle and King County in implementing the Central Region trauma care system. Components identified by the State DOH have been incorporated into existing services facilitated. Regional Patient Care Procedures and MPD protocols are in place. Eight designated trauma centers and five rehabilitation facilities serve the Region. Trauma Registry data is utilized to evaluate system performance and to recommend the improvements identified in the Regional Plan.

Legislative Activities

Failure of the 1998-2003 EMS levy prompted King County to appointment of a Financial Planning Task Force. The Task force will review system performance, including costs, and recommend future funding options to the King County Council.

Financial Planning

Regional funds are used to support administrative, training, public education, and injury prevention activities. The Central Region Trauma Registry is jointly funded through contributions of the trauma centers and State EMS and trauma funds.

Injury Prevention

The Central Region is an active partner in public education and injury prevention activities in Seattle and King County. Selection of injury prevention programs supported by the Council is data based. The Fall Factors Program is targeted at falls in the elderly and meets a specific prevention need in the Region. The Program is currently evaluating the effectiveness of its interventions.

Human Resources

Considerable EMS and health care personnel resources are available in the Central Region. Resources include approximately 15,000 doctors, dentists, nurses and technicians. EMS providers number 3,500. Workforce needs are currently being met.

The Central Region supports trauma specific training for hospital and pre-hospital providers. The demand for training is at maintenance levels. Training for rehabilitation facility employees will be addressed in FY 2000.

Prehospital

Prehospital and hospital radio communications are provided by a state-of-the-art system managed by King County. The 800MHz system includes a feature that allows creation of local talks groups among responding Fire, EMS, police and public service agencies. Dispatchers receive standardized training and participate in quality assurance activities.

Patient Care Procedures and Medical Program Director patient care protocols have been developed. Both documents are scheduled for review and updating. Physician involvement in the planning, administration and evaluation of pre-hospital emergency medical services remains a hallmark of the Seattle and King County EMS systems.

Definitive Care

The Central Region is rich in patient care resources that also serve as referral points for other regions and states. The current number and levels of trauma centers are meeting trauma care needs. Trauma Registry data indicates an appropriate distribution of patients among the Region's trauma centers. Central Region trauma centers were re-designated late last year. The Council will review the number and level of trauma centers and make any recommendation for change in FY 2001.

Rehabilitation facilities were initially designated in 1998. Central Region facilities will serve as referral points for patients in neighboring counties and regions. Patient referral and facility

utilization data is not yet available. The Council will review the need for current number and levels of rehabilitation facilities in FY 2001.

Data Collection

Pre-hospital data collection is the responsibility of provider agencies in the Central Region. The EMS Division of Public Health - Seattle and King County facilitates transmission of data to the State for public service agencies in King County. The Seattle Fire Department, private ambulance services and hospitals report data directly to the State. Confidentiality of data is assured through the quality assurance policies of participating hospitals, provider agencies, Public Health, and the Regional Trauma Registry.

System Evaluation

The Quality Assurance Committee of the Central Region reviews and evaluates system performance. The Regional Trauma Registry provides data analysis and reports. A recent review indicates that the system is performing at or above expected levels. No shortage of pre-hospital or hospital resources has been identified.

The ability to report system costs remains hampered by the lack of a standardized cost accounting and Council access to financial data. Efforts to address these issues are being made at State and local levels.

EAST REGION

EXECUTIVE SUMMARY

The East Region EMS/TC Council has made great strides in the implementation of the East Region Trauma System during the past two years. Changes in the Executive Committee have not influenced the management philosophy nor changed the commitment of the Regional Council.

The East Region EMS/TC Council has addressed many of the challenging activities of implementation of the Emergency Medical Service and trauma system within the region.

A continued commitment to licensing, verification and designation has shown strides in our region. Updated information gleaned from the Licensing and Certification office in June of 1999 indicate that 65 of the 71 licensed prehospital agencies (4 in Idaho) are currently verified. Prehospital & Transportation has continued the solidification of the necessary aspects to develop excellent emergency care. The Verification Process and Checklist, used to glean additional information from agencies seeking verification status, was reviewed and updated by the committee and adopted by the Regional Council. The Regional Council, using this document, has recommended a number of prehospital agencies for verification during the past two years. The Affiliated Service Application Packet, previously adopted by the Regional Council and the Regional Advisory Committee, was reviewed and updated by the committee, and also adopted by the Regional Council. This document is used to glean additional information about a service applying for affiliation within the region.

In FY 98 the Prehospital & Transportation Committee reviewed all of the County Operating Procedures (COPs), which were submitted to the Regional Council for adoption. Those documents are currently under revision by the Department of Health (DOH). During FY 99 the committee reviewed 6 of the 9 currently approved Regional Patient Care Procedures (PCP). Those documents were updated as necessary, adopted by the Regional Council, and have been submitted to the DOH for approval. The remainder of the Regional PCPs will be reviewed during FY 00. All counties have either begun to develop or have developed Mutual Aid Agreements countywide. There are also regional Mutual Aid Agreements in place.

St. Luke's Rehabilitation Institute in Spokane, Washington, was designated a Level I Adult & Pediatric Trauma Rehabilitation Center. Currently designated trauma centers are in the process of reapplying for trauma designation through the Department of Health. Completed applications are due to be submitted on July 1, 1999 with on-site reviews scheduled for August of 1999. The Health Care Facilities Committee reviewed minimum and maximum numbers of recommended health care facility trauma designations and trauma rehab designations in the fall of 1998. The recommendations forwarded to the Regional Council were adopted as submitted.

The East Region is very proud of the progress made in both prehospital and hospital data collection. The most current data submission numbers indicate 81% of all licensed agencies

are submitting data to the state registry. Health Care Facilities are also continuing to submit data to the state registry. The Regional Council, in conjunction with the regional Quality Improvement Committee, have sponsored data collection training for both prehospital agencies and health care facilities during the past biennium.

The Injury Prevention & Public Education Committee has worked very hard to continue sponsoring and implementing various IPPE programs throughout the region. A new IPPE Coordinator was hired in June of 1999 to coordinate the regionally adopted programs. In May of 1999 the Drowning Prevention program was turned over to the Spokane County Drowning Coalition, who agreed to continue the program to include all of the nine counties in the region. A new program called Minors in Prevention was developed in 1998 in conjunction with the Spokane hospitals, coroners' office, Spokane County District and Diversion Courts, for young adults between the ages of 16 and 20. Eligibility in the program requires that a young person must have received a DUI (Drivers under the influence), MIP (Minors in possession) and/or MIC (Minors in consumption) ticket through the courts. The Regional Council is currently re-evaluating the program to determine if it is appropriate to remain under the administration of the Regional Council, or if the program should be administered by another entity.

Emphasis continues to be placed on Emergency Medical Dispatch training region-wide. During the last biennium the Regional Council hosted two EMD classes through MEDICAL PRIORITY CONSULTANTS. Currently there are approximately 225 certified (National EMD Academy) dispatchers and call takers in the region.

The Regional Council continues to contract with the Inland Empire Training Council (IETC) to provide CME/OTEP to the rural counties of the region. The IETC continues to be recognized for its excellence and committed approach to education. The regional Health Care Facilities Committee has provided a methodology for reimbursement of prehospital providers for Acute Care Facility Trauma training. This reimbursement has enabled the hospitals to continue to meet designation requirements for education.

During the next biennium the Regional Council will:

- Through the Prehospital & Transportation Committee, continue to review, update and adopt where appropriate Regional Patient Care Procedures and County Operating Procedures.
- Review trauma facility designated min/max numbers.
- Review prehospital agency verified min/max numbers.
- Participate in a pilot project for the use of Epinephrine.
- Review verification applications and forward recommendations to the DOH.
- Review affiliation applications.
- Sponsor EMD training.
- Sponsor data collection training.
- Contract with the Inland Empire Training Council for CME/OTEP training in rural counties.

- Through the Injury Prevention & Public Education Committee and its Coordinator, pursue and utilize grants to enhance safety for the public and emergency responders.

This biennial plan has been written as a business plan. We have tried to write each goal as if it were a possible grant application. Many of the goals will continue to involve research and development of programs prior to actually being able to implement the goal. The East Region EMS and Trauma Care Council will recognize its successes and strive to develop further aspects of emergency and trauma care. The spirit and teamwork of our region will be our backboard.

Welcome to the East Region.

NORTH REGION

EXECUTIVE SUMMARY

North Region is located in the northwest corner of the state and includes Island, San Juan, Skagit, Snohomish and Whatcom Counties. The North Region EMS & Trauma Care Council facilitates regional trauma system planning, implementation, and system maintenance. The mission of North Region EMS is to promote a coordinated region-wide system. The System shall provide quality, comprehensive, and cost effective emergency medical and trauma care to individuals in Island, San Juan, Skagit, Snohomish, and Whatcom Counties. The work of the Council is consistent with state and federal trauma system mandates and includes the areas of: (1) administration, (2) public information and injury prevention, (3) human resources, (4) prehospital care, (5) definitive care, and (6) evaluation.

Administration includes regional leadership, system development and implementation. The Regional Council carries out regional statutory requirements and sets the direction for the regional system. The Regional Council staff work directly with the Council membership, Washington State Department of Health Office of Emergency Medical Services & Trauma Systems, citizen and provider groups, and facilitate the Council's planning process and implementation strategies. State grant funding supports the regional work and the Council allocates available funds for system planning, implementation and maintenance. An emphasis is placed on granting funds for projects of regional impact and meeting local needs, especially of the volunteer provider agencies. The Council produces a biennial plan, which addresses regional system progress and accomplishments and establishes goals and objectives for further system improvement. Operationalizing the regional system includes prehospital verification, hospital designation, prehospital patient care procedures, and data collection and system improvement.

Public Information and Injury Prevention includes a regional program to inform the public and providers about the state and regional EMS and trauma system and injury prevention activities. The North Region EMS and Trauma Care Council's emphasis is place on (1) developing an understanding of the need for an integrated and timely, systematic, approach to providing care for injured patients, (2) appropriate use of 911, and (3) supporting and developing injury prevention activities and projects throughout the region using a network-building approach. Council staff facilitate the Council's focus on preventing injury and work to develop collaborative relationships with other agencies with injury prevention missions, with a strong emphasis on EMS agencies. The Council provides grants for injury prevention programs and activities in the region, and funds and directs "Buckle Up Baby", and "Protect Your Brain" programs.

Human Resources includes education of prehospital and hospital personnel who are involved with trauma care. The Regional Council provides grants for prehospital basic and continuing education certification training, prehospital and hospital trauma training for adult and pediatric care, and other specialized training identified as contributing to a regional trauma

system, including: instructor training, emergency medical dispatcher training, and rescue training. A regional Education Committee composed of representatives of county training groups works closely with the Executive Board and Council staff on system planning, implementation and maintenance related to education.

Prehospital Care includes communications, EMS medical direction, and patient care procedures. The Regional Council provides a forum for communications center administration to explore inter-county and regional issues. The Council supports Emergency Medical Dispatcher training and Continuing Education (CE). The Council holds quarterly Medical Program Director (MPD) meetings, which focus on local and regional EMS and trauma system development. The Council provides grants to MPDs to assist in their county medical control duties. Patient Care procedures are the work of Council committees, including the MPDs. Patient Care procedures (operational guidelines) address: (1) access to prehospital EMS care, (2) Identification of major trauma patients, (3) system activation, (4) identification of the level of medical care personnel to be dispatched to the scene of major trauma and to transport major trauma, (5) prehospital response times, (6) activation of air ambulance service for field response to major trauma, (7) transport of patients outside of base area, (8) transport of patients to designated trauma centers, (9) designated trauma center diversion, (10) activation of hospital trauma resuscitation team, and (11) inter-facility transfer of major trauma patients. Council staff facilitates these activities and takes the system recommendations to the Executive Board and General Council.

Definitive Care is provided by eight hospitals in the region that are committed to meeting the standards of designated trauma services. Re-designation is currently taking place at the trauma facilities. One of the eight hospitals will not be re-designating. The Region is evaluating the designation change. The Regional Council provides a forum for networking with between the facilities through a Prehospital Committee, Trauma Facility Network and QI Committee. The three groups work closely with Council staff on system planning and implementation and advise the Council on hospital trauma training needs, the number and levels of designated trauma services needed in the region, quality improvement models, and other issues. Recommendations are made to the Council. The Council provides grants to hospital and clinic nurses and physicians for adult and pediatric trauma education.

Evaluation of regional system design and patient care has begun using a quality improvement model that is data driven. The North Region system is complete and some data is being used to evaluate the system. The North Region is striving to have all prehospital verified agencies collect data and report to DOH. The North Region has implemented a prehospital non-transport Data Collection program to enhance data collection using a data short form and banding all patients. Data will be used to determine the need for system modification. A regional quality improvement program which includes agency, county and regional components and is analyzing data and will make recommendations to the Regional Council.

The North Region EMS & Trauma Care Council is committed to the development, implementation and maintenance of the systematic approach to trauma patient care.

NORTH CENTRAL REGION

TRAUMA CARE SYSTEM PLAN

This plan represents the efforts of the North Central Region EMS & Trauma Care Council, under the legislative authority of the Department of Health, to design a model trauma care system for the four counties, comprising the north central region of Washington.

The North Central Region EMS & Trauma Care Plan seeks to further develop and implement an efficient and effective trauma system, incorporated into the existing EMS prehospital system and healthcare facility network, designed to prevent trauma injuries, effectively treat and rehabilitate trauma patients. Through cooperation and collaboration, our goal is to develop a seamless system that provides quality care from the first responder through the rehabilitation center.

The plan will demonstrate the strengths and weaknesses of the existing system. It will show the goals and objectives so as to continue the development those strengths while addressing specific methods for changing the system to overcome the weaknesses.

Due to the complexity and depth of the needs of the region, this document will be dynamic, changing as necessary to accommodate those needs as identified throughout the biennium. Several general long-term goals that are currently identified in the plan are as follow:

1. Raise awareness through the use of effective and specifically targeted injury prevention and public education programs, in hopes of decreasing the incidence of preventable trauma.
2. Encourage the compliance of all agencies in the submission of data to the state for compilation and dissemination.
3. Ensure that a system is in place that will efficiently manage a mass casualty incident whether manmade or natural disaster.
4. Provide for all EMS and trauma care providers the necessary training to maintain skill levels identified as needed.
5. Develop a communication system within the region that is accessible to all providers.
6. Identify the process for continued scrutiny of existing minimum and maximum levels of prehospital agencies, trauma care facilities and trauma rehabilitation facilities within the region.
7. Encourage the cooperation and collaboration between all prehospital agencies and trauma care facilities.
8. Regularly review the patient care procedures as needed for trauma related services and systems.
9. Further develop a quality improvement program that will identify general areas of deficiencies and will recommend system changes as found needed.

NORTHWEST REGION

TRAUMA CARE SYSTEM PLAN

The Northwest Region Emergency Medical Services and Trauma Care Council, which consists of Clallam, Jefferson, Kitsap and Mason Counties and the West Olympic Peninsula EMS Council, represents a diversity in emergency medical services and trauma care. Level of care varies from Basic Life Support (BLS) to Advanced Life Support (ALS). Response times vary from an arrival on-scene time of under eight minutes 80% of all calls to an arrival on-scene time of over an hour, depending on the area the call originates from. In some areas only a few miles separate this diversity in levels of care and response times.

A variety of reasons explain these differences. An area of low population and low revenue translates into a low volunteer pool and low economic base. Rural remote areas, which make up a large portion of the Northwest Region, exacerbate the problem, as population and access to telephones are very limited, resulting in delays of reporting emergencies. Cellular coverage in the Northwest Region has expanded recently providing better emergency reporting.

Education awareness of the emergency medical services and trauma care system is an imperative and ongoing process within the Northwest Region. The full extent of what is being done and what is lacking will not become a priority until those impacted by the EMS system are fully educated on the significance and importance of an EMS system to each community. Another reality is that many agencies do not have the financial resources available to provide their own service and must rely on a service many miles away.

Jefferson County participated in an Intermediate Level Support (ILS) pilot project during 1998. They will train and upgrade more providers to the ILS level during this next fiscal year and Neah Bay, located in the far northwest corner of the region, is currently conducting an ILS class. ILS is specifically targeted toward rural and remote providers and will provide a very necessary service.

Continuing education for BLS and ILS providers within the Northwest Region is provided through an Ongoing Training and Evaluation Program (OTEP) developed by the Northwest Region's Training Coordinator and approved by the Department of Health. OTEP consists of twenty-four modules taught on-site at agencies on a rotating basis. Eight of the modules contain necessary components to transition EMT-A's to EMT-B's, which must be completed by 9/30/99.

During FY '2000 the Training Coordinator and Training, Education and Development Committee members will rewrite all module tests. The new tests will be written in a scenario-based format. All tests are considered living documents and will be reviewed and rewritten on a biannual basis.

Continuing education for Advanced Life Support providers is provided through in-house monthly base station meetings conducted by physicians. The Northwest Region also sponsors

an annual EMS conference that provides recertification courses and additional training opportunities for providers within the Northwest Region and throughout the state.

Communication centers, although they are not recognized in the trauma bill, are an integral component of emergency medical services and patient care. Kitsap County is currently transitioning and training personnel in Criteria Based Dispatching. Procurement of funding for Emergency Medical Dispatch personnel training is a priority for FY'2000.

One committee divided into two regional components performs prevention activities in the Northwest Region. Clallam and Jefferson committee members represent the northern part of the Northwest Region and Kitsap and Mason committee members serve the southern portion of the region.

During the past seven years, over 12,000 helmets have been distributed to disadvantaged youth living within the Northwest Region. Sober Roadways presentations are presented to an average of 800 participants per month, including Navy personnel. Additionally, Youth DUI Victim's presentations are made monthly to approximately 75 teens and their parents. Trauma Nurses Talk Tough presentations and Tread to Safety presentations reach an additional 100 – 200 participants each month. Six Mock Crash presentations occurred during this past year and reached a total of 2800 teens. All of the above prevention activities, and the addition of car seat safety, will continue during the FY'2000-2001 biennium in an effort to reach as many participants as possible

The Northwest Region is unique in the fact that each county has only one major healthcare facility located in each area of population and geography. Kitsap County contains the only Level III trauma center within the region. Clallam County has two Level IV centers with one in Forks and one in Port Angeles; Jefferson and Mason Counties each have a Level IV trauma center located in Port Townsend and Shelton, respectively.

Quality assurance reviews are conducted bimonthly by a Quality Assurance Committee consisting of members from both hospital and prehospital venues. An annual retreat is also conducted during the month of May.

In April 1999 Department of Health staff members, Northwest Region Medical Program Directors, Northwest Region EMS Council staff members and a Thurston County MPD met to discuss regional and statewide issues. The consensus of that group has led to the first stages of development and implementation of Northwest Region Patient Care Protocols.

Some Northwest Region EMS local council's are monitoring Public Access Defibrillation within their county. Medical Program Directors are aware of their locations and use.

Human resources, from volunteer emergency medical personnel to committee members, are, and will continue to be, the highest priority for rural volunteer agencies and the Northwest Region EMS Council membership. This is a situation faced by agencies and regions statewide and recruitment efforts will continue throughout the new biennium.

With the continued support of the Department of Health, and staff from the Office of EMS and Trauma Prevention, the Northwest Region will continue its efforts for the implementation and refinement of an effective region-wide trauma system. This system will enable agency personnel to meet the emergency medical needs of residents and visitors to the Northwest Region and the State of Washington.

SOUTH CENTRAL REGION

EXECUTIVE SUMMARY

The South Central Region, located in central and southern Washington State, includes six counties: Kittitas, Yakima, Benton, Franklin, Walla Walla, and Columbia. There are four urban areas, which include the Cities of Yakima, Richland, Kennewick, Pasco, Walla Walla, and Ellensburg. The Region's primary industry is agriculture due to the mild sunny climate coupled with sophisticated irrigation systems. The Regional population of over 476,000 is classified as relatively young with an average age of thirty to forty-five. Population is greatly influenced by seasonal influxes of migrant farm workers for the agricultural industries.

The Hanford Nuclear Reservation is a major employer in the cities of Richland, Kennewick, and Pasco. The storage of hazardous nuclear waste within the Region precipitates unique emergency medical response and additional training of both prehospital responders and hospital employees. The Hanford contractors take an active part in integrating their unique needs into local emergency management plans and Regional EMS and Trauma System plan.

A major problem identified in trauma system development is long EMS response and transport times due to the Region's large rural areas. National surveys show that rapid transport of trauma patients to trauma centers significantly increases survival. Studies advocate rapid transport by emergency medical helicopter systems. While there is currently no such service within the geographical boundaries of the South Central Region, there are emergency medical helicopters, located in Moses Lake and Wenatchee, that can perform Regional scene response. Fixed wing medical air transport is available for interfacility transport from locations in Pasco, Spokane, Wenatchee, and Seattle. U.S. Army MAST helicopter from the Yakima Firing Center is available for wilderness rescue.

Analysis of Regional EMS services found that urban/suburban EMS agencies provide a mix of public and private ALS ambulance services. Rural EMS agencies are primarily volunteer BLS First Responder and BLS ambulance services with long response and transport times. The Regional Council established a goal to improve EMS response times for the rural areas by developing a tiered EMS system of First Responder services backed by BLS ambulances, backed by ALS ambulances. Locations were targeted for development of First Responder aid units and rural ambulances were targeted for increased EMS skill levels to such ILS skills as IV and airway (combi-tube.) The Region facilitated purchase of EMS equipment required for trauma verification through thousands of dollars of matching trauma grants.

Another key accomplishment has been trauma verification of Regional EMS services and designation of trauma services. All thirteen Regional health care services have been designated as part of the trauma system, ranging from modern medical centers to a freestanding emergency clinic.

Injury prevention and public education, the true cure for trauma, is provided through a multifaceted program utilizing two part time Injury Prevention Public Education (IPPE) Coordinators. They work with a number of like-minded coalitions such as Washington Traffic Safety Commission, Traffic Corridor Safety Projects and Think First. Regional activities include child car seat restraint, "Sober Roadways" in both adult and teen versions in English and Spanish, bike helmet safety programs and "Wildfeet" safety education programs.

Twelve Patient Care Procedures (PCPs) have been developed to provide specific directions for the trauma system. Regional guidelines establish a system and internal structure to assure uniformity of input and update of the trauma plan and PCPs as well as recommendations for EMS agency licensure, trauma verification, and affiliation.

EMS communications, an inherent weakness of the Regional trauma system, has been enhanced through matching grants for equipment. VHF H.E.A.R. radio is the Region's communication link between EMS and trauma services. Washington State's recommended communications system is UHF MEDCOM. A Regional plan to cross band existing VHF systems to the UHF state communication backbone system has not been possible due to funding cuts. The Regional Council continues to explore new directions for EMS & Trauma system communications.

Enhanced 9-1-1 emergency telephone access is available Region-wide. A standardized emergency medical dispatcher (EMD) course has been adopted by the Regional Council through instructor training of local dispatchers and paramedics.

EMS continuing medical education (CME) and ongoing trauma education programs (OTEP) have been established through Regional contracts with the five local EMS and trauma care councils. Four Regional colleges regularly provide EMS training such as First Responder, EMT and paramedic. In Addition, trauma training courses such as TNCC and PALS are provided through the colleges or trauma services Regional grants fund advanced trauma training of physicians and trauma service staff. Other onsite trauma education offerings are available from the air medical services located in Moses Lake and Wenatchee, and from the trauma services in the Region.

Regional trauma services, EMS providers, Regional Council members, and Department of Health Office of EMS & Trauma Prevention staff established a regional Continuous Quality Improvement (CQI) Committee and developed a CQI Plan. Quarterly meetings are held to analyze trends, review Trauma Registry statistics, and identify trauma system issues.

The Regional Council recognized that Trauma Registry data is the key to continued development and implementation of a trauma system. Designated trauma services collect and submit Trauma Registry data. EMS agencies, especially volunteer agencies, were experiencing difficulty in collecting and submitting data. The Regional Council developed a Trauma Registry Training program for EMS providers that has more than doubled EMS Trauma Registry data submission in 1998.

The Regional Council continuously is redefining and creating new goals and timelines to further trauma system implementation. The Regional Council accepts its leadership role in trauma system development.

SOUTHWEST REGION

EXECUTIVE SUMMARY

The Southwest Region EMS & Trauma Care Council is the forum for development of the regional trauma care system. Since 1991 the Council, in its *Southwest Region Trauma System Development Plan*, has determined the goals and objectives for excellent trauma care in the Region. This seventh revision of the Plan continues the effort of the Council periodically to refine the trauma care system and respond to its obligations to the Department of Health, Office of Emergency Medical and Trauma Prevention, Olympia Washington. This plan derives from the Council's consensus on how the Region should structure trauma care within the bounds of the most recent interpretations of RCW and WAC by the Office of Emergency Medical and Trauma Prevention.

Following clarification of the statutory and administrative authority of the Region to enforce higher standards than those of the State, this plan changes the method of data collection for providers in the Region. The Region's commitment to a cohesive system including improved public access, Emergency Medical Dispatch and prehospital response, and definitive care and rehabilitation remains unchanged. Continued experience with transport issues in the Region's more rural parts has led the Council to recommend including hospitals in neighboring regions as appropriate destinations in some circumstances and assisting in training prehospital responders on the Region's east border.

The Region remains committed to prompt initial care and transport of major trauma patients to appropriate designated and verified trauma centers by prehospital providers with trauma training. The Plan provides for effective inter-facility transfer of major trauma patients to the highest level of trauma care appropriate for their injuries. The Council reaffirms the following goals, first set in 1991 and revised in subsequent Plan editions:

- Decrease the incidence of trauma in the Region through a well designed and appropriate injury prevention program
- Assure rapid and appropriate access to the regional trauma system through a region-wide 9-1-1 system
- Assure essential emergency medical dispatcher, prehospital, and hospital trauma care training
- Maintain specialized trauma verified first response and transport vehicles to respond to all major trauma incidents in the Region
- Recommend that a minimum of 6 and a maximum of 62 aid services be trauma verified; that a minimum of 6 and a maximum of 35 ambulance services be trauma verified; and that a minimum of 1 and a maximum of 2 helicopter ambulance services be trauma verified.

- Designate one Level II, one Level III, three Level IV, and up to two Level V trauma centers in the Region.
- Design and implement emergency medical dispatch (EMD) standards and develop standardized EMD training programs that incorporate activation of the trauma system.
- Assure optimal trauma care for trauma victims in the Region.
- Work with Oregon trauma providers to assure an appropriate transfer to higher care and appropriate rehabilitation services.
- Ensure rapid transportation of trauma patients, by trauma-verified ambulances and first response vehicles and/or air ambulance, to the appropriate health care facility.
- Revise and improve trauma-related prehospital, hospital, and transfer protocols and procedures
- Revise and improve the Region's quality assessment and improvement program to monitor the regional system and to identify areas for improvement and research.
- Develop trauma stress teams that respond to trauma incidents and help victims and families of victims of trauma.
- Balance the cost of trauma care and the trauma system against the cost to society of failure to provide such a system.
- Work with Medical Program Directors to ensure that standards and recommendations in this Plan are enacted.
- Develop a regional oversight process to ensure that system changes proposed in the Region are consistent with this Plan.

In all cases, in its goals, objectives and recommendations, this Plan considers the patient's needs to be the primary criteria guiding the development of the Southwest Region's EMS and Trauma Care System. By ensuring the skilled transportation of the right trauma patient to the right trauma center at the right time, as well as effective inter-facility transfer and eventual rehabilitation, the Southwest Region strives to meet those needs.

WEST REGION

EXECUTIVE SUMMARY

The West Region Emergency Medical Services (EMS) and Trauma Care Council, Inc. performs a vital function in the coordination, planning and delivery of emergency medical and trauma prevention services for the state of Washington and its citizens. The Council members are a group of volunteers committed to a system-wide approach to effective and efficient delivery of EMS and trauma care services. Trauma kills more Americans between the ages of one and thirty-four than all illnesses combined. It is the leading cause of death for all people under age forty-four, and the leading cause of disability under age sixty-five. Nearly all of these injuries and deaths are considered avoidable and preventable.

VISION STATEMENT

We envision a tenable regional EMS and Trauma System with a plan that:

- *Keeps patient care and interest the number one priority*
- *Recognizes the value of prevention and public education to decrease trauma-related morbidity and mortality*
- *Preserves local integrity and authority in coordination with inter/intra-regional agreements*

West Region is a major population, manufacturing, transportation/shipping corridor, and tourist center of the state (second only in these areas to the single-county Central Region). It has the additional challenge of its jurisdictional composition, a five-county area including Grays Harbor, Lewis, N. Pacific, Pierce and Thurston. The larger geography spreads population density/centers and increases the challenge for EMS response and treatment services in an area of over 7,000 square miles.

The West Region continues to grow at a rapid rate, ever challenging the regional EMS and trauma care system to provide service. These service challenges continue to stress the regional resources for response, treatment and subsequently financial capacity. Increasing public demands for rapid, quality services are in contrast to increasingly elusive resources to support public health and safety. The stresses of population growth (regional population growth averaged 2.6% over previous year), business growth (regional growth in manufacturing from position 4 to position 2 in the state) and licensed drivers/automobiles/traffic (regional licensed driver growth 4.5% over previous year) will continue to challenge health care providers and public safety personnel in local, regional, state and national settings.

The West Region Trauma System Plan seeks to create a model system that effectively treats and rehabilitates trauma victims, and increases injury prevention. The mission is to reduce human suffering and costs associated with morbidity and mortality. This is accomplished through providing assistance and guidance to local providers in the coordination and improvement of EMS and trauma care services. To guarantee all citizens and visitors appropriate and timely trauma and EMS care, the West Region will focus efforts toward

medical and prevention education and training of EMS and trauma personnel, trauma level designations of hospitals, trauma verification of prehospital agencies, data collection and regional quality improvement.

Major Council goals for the upcoming two years are described below. These goals do not replace other important work being done through the state emergency medical and trauma prevention system. However, they highlight areas where significant progress, accomplishments and opportunities demand the Council's attention and involvement.

Trauma Designation. The Regional Council supports the designation of at least one Level II adult trauma center in the region and the inclusion of Level IV designations in urban as well as rural areas. The Council also supports ongoing regional evaluation of trauma center needs and resources. Educational and coordination needs of the designated facilities will be supported within the limits of Council resources.

EMS Conference. The West Region EMS Conference is a major continuing EMS and Trauma education opportunity in the state. The Council will again hold its annual Conference in the first quarters of 2000-01. Speakers and workshops will cover education/training for BLS, ALS, instructors and injury prevention.

State Trauma Registry. The Council has recognized a continuing need for improvements in the coordination of the EMS and trauma data collection system. The Council has, and will continue to have, members active in the role of improving the efficiency and use of this system for the state and in the region. The Council recognizes the importance of this statewide effort and will sponsor Collector training for hospital and prehospital data sources in the West Region.

Quality Improvement Forum. The regional Council and staff will continue to support the efforts of the West Region Quality Improvement (QI) Forum. Under the leadership of designated trauma services, the QI Forum performs confidential, critical review of EMS and trauma care throughout the regional system.

Injury Prevention and Public Education. The regional Council and staff are committed to injury prevention and public education activities. The Council will continue to support the educational and coordination needs of local providers and coalitions that actively participate in grassroots injury prevention efforts. The Council strives to serve as a well-informed, valued information source about the EMS/trauma system for a variety of audiences, including public citizens, government officials, media and health care providers.

Provider Education and Training. The Council supports Ongoing Training and Evaluation Program (OTEP) and continuing medical education (CME) for prehospital providers, as well as trauma courses for nurses and physician. The goal is to insure the provision of up-to-date trauma education/training and skills maintenance through courses that are community-based (onsite or centrally located).

The West Region Council will continue with its current leadership structure of Executive Board, Committee Chairs and regional office support staff (sans Administrator). Financial resources have been reallocated to provide regional services at lower administrative cost. This is especially necessary in light of the static level of legislative fund allocations. The Council has felt some decrease in internal coordination and increase in support staff stress due to the change. Our commitment remains to provide focused, goal-driven services that optimize regional coordination, planning, and delivery of EMS and trauma care services.

The Council's biennial budget of \$496,358 in public funds from the state is used to help coordinate in the neighborhood of 3000 prehospital providers, 100 prehospital agencies and 15 health care facilities in the provision of services to EMS and trauma patients in a total population of over 1 million potential patients throughout the West Region. The Council continuously strives to optimize the coordination and subsequent effectiveness of communities and institutions that provide medical and emergency medical services, groups that often represent discrete and independent jurisdictions. We assert the Council's regional role is an efficient, effective and necessary use of public funds.

Appendix F

EMS & TRAUMA CARE STEERING COMMITTEE

EMERGENCY MEDICAL SERVICES AND TRAUMA CARE STEERING COMMITTEE

Merry Alto, MD	American College of Emergency Physicians
Robert Berschauer	Washington Ambulance Association
David Byrnes	Washington Association of Fire Chiefs
Michael Copass, MD	Washington State Medical Association
Sue Dietrich, RN	Washington State Medical Association Auxiliary
William Hinkle	Local Government Agency Representative
Brian Hurley	Washington State Council of Firefighters
David E. Jaffe	Washington State Hospital Association
Eric P. Jensen	Washington State Hospital Association
Bobby F. Kirk	Washington State Association of Fire Chiefs
Juris Macs, MD	American College of Surgeons
Ronald Maier, MD	American College of Surgeons
Cynthia Markus, MD	American College of Emergency Physicians
James Nania, MD	Washington State Medical Association
Elli Nelson	Rural Volunteer, Grant County FD #10
Lothar Pinkers, MD	Washington State Medical Association
Jack Pinza	Prehospital Providers
Zachary Rinderer, RN	Washington State Emergency Nurses Association
Sam Sharar, MD	Washington State Society of Anesthesiologists
Helmut Steele	Law Enforcement
Michael Sumner	Consumer Representative
Margaret Sweasy	Northwest Association of Rehabilitation Facilities
Lori Taylor, RN	Critical Care Nurses Association
Kim Marie Thorburn, MD	Washington State Association of Local Public Health Officials
Salud Villas, RN	Association of Rehabilitation Nurses
Marvin Wayne, MD	American College of Emergency Physicians
David Williams	Washington State Fire Commissioners Association
Lorraine Wojahn	Former Washington State Senator
Paul Zaveruha, MD	Medical Program Director

Appendix G

RCW 70.168

Chapter 70.168 RCW
STATE-WIDE TRAUMA CARE SYSTEM

SECTIONS

- 70.168.010 Legislative finding.
- 70.168.015 Definitions
- 70.168.020 Steering committee -- Composition -- Appointment.
- 70.168.030 Analysis of state's trauma system -- Plan.
- 70.168.040 Emergency medical services and trauma care system trust account.
- 70.168.050 Emergency medical services and trauma care system -- Department to establish -- Rule making -- Gifts.
- 70.168.060 Department duties -- Timelines.
- 70.168.070 Provision of trauma care service -- Designation.
- 70.168.080 Prehospital trauma care service -- Verification -- Compliance -- Variance.
- 70.168.090 State-wide data registry -- Quality assurance program -- Confidentiality.
- 70.168.100 Regional emergency medical services and trauma care councils.
- 70.168.110 Planning and service regions.
- 70.168.120 Local and regional emergency medical services and trauma care councils -- Power and duties.
- 70.168.130 Disbursement of funds to regional emergency medical services and trauma care councils -- Grants to nonprofit agencies -- Purposes.
- 70.168.135 Grant program for designated trauma care services -- Rules.
- 70.168.140 Prehospital provider liability.
- 70.168.900 Short title.
- 70.168.901 Severability -- 1990 c 269.

RCW 70.168.010**Legislative finding.**

The legislature finds and declares that:

- (1) Trauma is a severe health problem in the state of Washington and a major cause of death;
- (2) Presently, trauma care is very limited in many parts of the state, and health care in rural areas is in transition with the danger that some communities will be without emergency medical care;
- (3) It is in the best interest of the citizens of Washington state to establish an efficient and well-coordinated state-wide emergency medical services and trauma care system to reduce costs and incidence of inappropriate and inadequate trauma care and emergency medical service and minimize the human suffering and costs associated with preventable mortality and morbidity;
- (4) The goals and objectives of an emergency medical services and trauma care system are to:
(a) Pursue trauma prevention activities to decrease the incidence of trauma; (b) provide optimal care for the trauma victim; (c) prevent unnecessary death and disability from trauma and emergency illness; and (d) contain costs of trauma care and trauma system implementation; and
- (5) In other parts of the United States where trauma care systems have failed and trauma care centers have closed, there is a direct relationship between such failures and closures and a lack of commitment to fair and equitable reimbursement for trauma care participating providers and system overhead costs.

[1990 c 269 § 1; 1988 c 183 § 1.]

RCW 70.168.015**Definitions.**

As used in this chapter, the following terms have the meanings indicated unless the context clearly requires otherwise.

- (1) "Communications system" means a radio and landline network which provides rapid public access, coordinated central dispatching of services, and coordination of personnel, equipment, and facilities in an emergency medical services and trauma care system.
- (2) "Emergency medical service" means medical treatment and care that may be rendered at the scene of any medical emergency or while transporting any patient in an ambulance to an appropriate medical facility, including ambulance transportation between medical facilities.
- (3) "Emergency medical services medical program director" means a person who is an approved program director as defined by RCW 18.71.205(4).
- (4) "Department" means the department of health.

(5) "Designation" means a formal determination by the department that hospitals or health care facilities are capable of providing designated trauma care services as authorized in RCW 70.168.070.

(6) "Designated trauma care service" means a level I, II, III, IV, or V trauma care service or level I, II, or III pediatric trauma care service or level I, I-pediatric, II, or III trauma-related rehabilitative service.

(7) "Emergency medical services and trauma care system plan" means a state-wide plan that identifies state-wide emergency medical services and trauma care objectives and priorities and identifies equipment, facility, personnel, training, and other needs required to create and maintain a state-wide emergency medical services and trauma care system. The plan also includes a plan of implementation that identifies the state, regional, and local activities that will create, operate, maintain, and enhance the system. The plan is formulated by incorporating the regional emergency medical services and trauma care plans required under this chapter. The plan shall be updated every two years and shall be made available to the state board of health in sufficient time to be considered in preparation of the biennial state health report required in RCW 43.20.050.

(8) "Emergency medical services and trauma care planning and service regions" means geographic areas established by the department under this chapter.

(9) "Facility patient care protocols" means the written procedures adopted by the medical staff that direct the care of the patient. These procedures shall be based upon the assessment of the patients' medical needs. The procedures shall follow minimum state-wide standards for trauma care services.

(10) "Hospital" means a facility licensed under chapter 70.41 RCW, or comparable health care facility operated by the federal government or located and licensed in another state.

(11) "Level I pediatric trauma care services" means pediatric trauma care services as established in RCW 70.168.060. Hospitals providing level I services shall provide definitive, comprehensive, specialized care for pediatric trauma patients and shall also provide ongoing research and health care professional education in pediatric trauma care.

(12) "Level II pediatric trauma care services" means pediatric trauma care services as established in RCW 70.168.060. Hospitals providing level II services shall provide initial stabilization and evaluation of pediatric trauma patients and provide comprehensive general medicine and surgical care to pediatric patients who can be maintained in a stable or improving condition without the specialized care available in the level I hospital. Complex surgeries and research and health care professional education in pediatric trauma care activities are not required.

(13) "Level III pediatric trauma care services" means pediatric trauma care services as established in RCW 70.168.060. Hospitals providing level III services shall provide initial evaluation and stabilization of patients. The range of pediatric trauma care services provided in level III hospitals are not as comprehensive as level I and II hospitals.

(14) "Level I rehabilitative services" means rehabilitative services as established in RCW 70.168.060. Facilities providing level I rehabilitative services provide rehabilitative treatment to patients with traumatic brain injuries, spinal cord injuries, complicated amputations, and other diagnoses resulting in functional impairment, with moderate to severe impairment or complexity.

These facilities serve as referral facilities for facilities authorized to provide level II and III rehabilitative services.

(15) "Level I-pediatric rehabilitative services" means rehabilitative services as established in RCW 70.168.060. Facilities providing level I-pediatric rehabilitative services provide the same services as facilities authorized to provide level I rehabilitative services except these services are exclusively for children under the age of fifteen years.

(16) "Level II rehabilitative services" means rehabilitative services as established in RCW 70.168.060. Facilities providing level II rehabilitative services treat individuals with musculoskeletal trauma, peripheral nerve lesions, lower extremity amputations, and other diagnoses resulting in functional impairment in more than one functional area, with moderate to severe impairment or complexity.

(17) "Level III rehabilitative services" means rehabilitative services as established in RCW 70.168.060. Facilities providing level III rehabilitative services provide treatment to individuals with musculoskeletal injuries, peripheral nerve injuries, uncomplicated lower extremity amputations, and other diagnoses resulting in functional impairment in more than one functional area but with minimal to moderate impairment or complexity.

(18) "Level I trauma care services" means trauma care services as established in RCW 70.168.060. Hospitals providing level I services shall have specialized trauma care teams and provide ongoing research and health care professional education in trauma care.

(19) "Level II trauma care services" means trauma care services as established in RCW 70.168.060. Hospitals providing level II services shall be similar to those provided by level I hospitals, although complex surgeries and research and health care professional education activities are not required to be provided.

(20) "Level III trauma care services" means trauma care services as established in RCW 70.168.060. The range of trauma care services provided by level III hospitals are not as comprehensive as level I and II hospitals.

(21) "Level IV trauma care services" means trauma care services as established in RCW 70.168.060.

(22) "Level V trauma care services" means trauma care services as established in RCW 70.168.060. Facilities providing level V services shall provide stabilization and transfer of all patients with potentially life-threatening injuries.

(23) "Patient care procedures" means written operating guidelines adopted by the regional emergency medical services and trauma care council, in consultation with local emergency medical services and trauma care councils, emergency communication centers, and the emergency medical services medical program director, in accordance with minimum state-wide standards. The patient care procedures shall identify the level of medical care personnel to be dispatched to an emergency scene, procedures for triage of patients, the level of trauma care facility to first receive the patient, and the name and location of other trauma care facilities to

receive the patient should an interfacility transfer be necessary. Procedures on interfacility transfer of patients shall be consistent with the transfer procedures required in chapter 70.170 RCW.

(24) "Pediatric trauma patient" means trauma patients known or estimated to be less than fifteen years of age.

(25) "Prehospital" means emergency medical care or transportation rendered to patients prior to hospital admission or during interfacility transfer by licensed ambulance or aid service under chapter 18.73 RCW, by personnel certified to provide emergency medical care under chapters 18.71 and 18.73 RCW, or by facilities providing level V trauma care services as provided for in this chapter.

(26) "Prehospital patient care protocols" means the written procedures adopted by the emergency medical services medical program director that direct the out-of-hospital emergency care of the emergency patient which includes the trauma patient. These procedures shall be based upon the assessment of the patients' medical needs and the treatment to be provided for serious conditions. The procedures shall meet or exceed state-wide minimum standards for trauma and other prehospital care services.

(27) "Rehabilitative services" means a formal program of multidisciplinary, coordinated, and integrated services for evaluation, treatment, education, and training to help individuals with disabling impairments achieve and maintain optimal functional independence in physical, psychosocial, social, vocational, and avocational realms. Rehabilitation is indicated for the trauma patient who has sustained neurologic or musculoskeletal injury and who needs physical or cognitive intervention to return to home, work, or society.

(28) "Secretary" means the secretary of the department of health.

(29) "Trauma" means a major single or multisystem injury requiring immediate medical or surgical intervention or treatment to prevent death or permanent disability.

(30) "Trauma care system" means an organized approach to providing care to trauma patients that provides personnel, facilities, and equipment for effective and coordinated trauma care. The trauma care system shall: Identify facilities with specific capabilities to provide care, triage trauma victims at the scene, and require that all trauma victims be sent to an appropriate trauma facility. The trauma care system includes prevention, prehospital care, hospital care, and rehabilitation.

(31) "Triage" means the sorting of patients in terms of disposition, destination, or priority. Triage of prehospital trauma victims requires identifying injury severity so that the appropriate care level can be readily assessed according to patient care guidelines.

(32) "Verification" means the identification of prehospital providers who are capable of providing verified trauma care services and shall be a part of the licensure process required in chapter 18.73 RCW.

(33) "Verified trauma care service" means prehospital service as provided for in RCW 70.168.080, and identified in the regional emergency medical services and trauma care plan as required by RCW 70.168.100.

[1990 c 269 § 4.]

RCW 70.168.020

Steering committee -- Composition -- Appointment.

(1) There is hereby created an emergency medical services and trauma care steering committee composed of representatives of individuals knowledgeable in emergency medical services and trauma care, including emergency medical providers such as physicians, nurses, hospital personnel, emergency medical technicians, paramedics, ambulance services, a member of the emergency medical services licensing and certification advisory committee, local government officials, state officials, consumers, and persons affiliated professionally with health science schools. The governor shall appoint members of the steering committee. Members shall be appointed for a period of three years. The department shall provide administrative support to the committee. All appointive members of the committee, in the performance of their duties, may be entitled to receive travel expenses as provided in RCW 43.03.050 and 43.03.060. The governor may remove members from the committee who have three unexcused absences from committee meetings. The governor shall fill any vacancies of the committee in a timely manner. The terms of those members representing the same field shall not expire at the same time.

The committee shall elect a chair and a vice-chair whose terms of office shall be for one year each. The chair shall be ineligible for reelection after serving four consecutive terms.

The committee shall meet on call by the governor, the secretary, or the chair.

(2) The emergency medical services and trauma care steering committee shall:

(a) Advise the department regarding emergency medical services and trauma care needs throughout the state.

(b) Review the regional emergency medical services and trauma care plans and recommend changes to the department before the department adopts the plans.

(c) Review proposed departmental rules for emergency medical services and trauma care.

(d) Recommend modifications in rules regarding emergency medical services and trauma care.

[2000 c 93 § 20; 1990 c 269 § 5; 1988 c 183 § 2.]

RCW 70.168.030

Analysis of state's trauma system -- Plan.

(1) Upon the recommendation of the steering committee, the director of the office of financial management shall contract with an independent party for an analysis of the state's trauma system.

(2) The analysis shall contain at a minimum, the following:

(a) The identification of components of a functional state-wide trauma care system, including standards; and

(b) An assessment of the current trauma care program compared with the functional statewide model identified in subsection (a) of this section, including an analysis of deficiencies and reasons for the deficiencies.

(3) The analysis shall provide a design for a statewide trauma care system based on the findings of the committee under subsection (2) of this section, with a plan for phased-in implementation. The plan shall include, at a minimum, the following:

- (a) Responsibility for implementation;
- (b) Administrative authority at the state, regional, and local levels;
- (c) Facility, equipment, and personnel standards;
- (d) Triage and care criteria;
- (e) Data collection and use;
- (f) Cost containment strategies;
- (g) System evaluation; and
- (h) Projected costs.

[1998 c 245 § 117; 1988 c 183 § 3.]

RCW 70.168.040

Emergency medical services and trauma care system trust account.

The emergency medical services and trauma care system trust account is hereby created in the state treasury. Moneys shall be transferred to the emergency medical services and trauma care system trust account from the public safety education account or other sources as appropriated, and as collected under RCW 46.63.110(6) and 46.12.042. Disbursements shall be made by the department subject to legislative appropriation. Expenditures may be made only for the purposes of the state trauma care system under this chapter, including emergency medical services, trauma care services, rehabilitative services, and the planning and development of related services under this chapter and for reimbursement by the department of social and health services for trauma care services provided by designated trauma centers.

[1997 c 331 § 2; 1990 c 269 § 17; 1988 c 183 § 4.]

NOTES:

Effective date -- 1997 c 331: See note following RCW 70.168.135.

RCW 70.168.050

Emergency medical services and trauma care system -- Department to establish -- Rule making -- Gifts.

(1) The department, in consultation with, and having solicited the advice of, the emergency medical services and trauma care steering committee, shall establish the Washington state emergency medical services and trauma care system.

(2) The department shall adopt rules consistent with this chapter to carry out the purpose of this chapter. All rules shall be adopted in accordance with chapter 34.05 RCW. All rules and procedures adopted by the department shall minimize paperwork and compliance requirements for facilities and other participants. The department shall assure an opportunity for consultation, review, and comment by the public and providers of emergency medical services and trauma care before adoption of rules. When developing rules to implement this chapter the department shall consider the report of the Washington state trauma project established under chapter 183, Laws of 1988. Nothing in this chapter requires the department to follow any specific recommendation in that report except as it may also be included in this chapter.

(3) The department may apply for, receive, and accept gifts and other payments, including property and service, from any governmental or other public or private entity or person, and may make arrangements as to the use of these receipts, including any activities related to the design, maintenance, or enhancements of the emergency medical services and trauma care system in the state. The department shall make available upon request to the appropriate legislative committees information concerning the source, amount, and use of such gifts or payments.

[1990 c 269 § 3.]

RCW 70.168.060

Department duties -- Timelines.

The department, in consultation with and having solicited the advice of the emergency medical services and trauma care steering committee, shall:

- (1) Establish the following on a statewide basis:
 - (a) By September 1990, minimum standards for facility, equipment, and personnel for level I, II, III, IV, and V trauma care services;
 - (b) By September 1990, minimum standards for facility, equipment, and personnel for level I, I-pediatric, II, and III trauma-related rehabilitative services;

(c) By September 1990, minimum standards for facility, equipment, and personnel for level I, II, and III pediatric trauma care services;

(d) By September 1990, minimum standards required for verified prehospital trauma care services, including equipment and personnel;

(e) Personnel training requirements and programs for providers of trauma care. The department shall design programs which are accessible to rural providers including on-site training;

(f) State-wide emergency medical services and trauma care system objectives and priorities;

(g) Minimum standards for the development of facility patient care protocols and prehospital patient care protocols and patient care procedures;

(h) By July 1991, minimum standards for an effective emergency medical communication system;

(i) Minimum standards for an effective emergency medical services transportation system; and

(j) By July 1991, establish a program for emergency medical services and trauma care research and development;

(2) Establish state-wide standards, personnel training requirements and programs, system objectives and priorities, protocols and guidelines as required in subsection (1) of this section, by utilizing those standards adopted in the report of the Washington trauma advisory committee as authorized by chapter 183, Laws of 1988. In establishing standards for level IV or V trauma care services the department may adopt similar standards adopted for services provided in rural health care facilities authorized in chapter 70.175 RCW. The department may modify standards, personnel training requirements and programs, system objectives and priorities, and guidelines in rule if the department determines that such modifications are necessary to meet federal and other state requirements or are essential to allow the department and others to establish the system or should it determine that public health considerations or efficiencies in the delivery of emergency medical services and trauma care warrant such modifications;

(3) Designate emergency medical services and trauma care planning and service regions as provided for in this chapter;

(4) By July 1, 1992, establish the minimum and maximum number of hospitals and health care facilities in the state and within each emergency medical services and trauma care planning and service region that may provide designated trauma care services based upon approved regional emergency medical services and trauma care plans;

(5) By July 1, 1991, establish the minimum and maximum number of prehospital providers in the state and within each emergency medical services and trauma care planning and service region that may provide verified trauma care services based upon approved regional emergency medical services and trauma care plans;

(6) By July 1993, begin the designation of hospitals and health care facilities to provide designated trauma care services in accordance with needs identified in the state-wide emergency medical services and trauma care plan;

- (7) By July 1990, adopt a format for submission of the regional plans to the department;
- (8) By July 1991, begin the review and approval of regional emergency medical services and trauma care plans;
- (9) By July 1992, prepare regional plans for those regions that do not submit a regional plan to the department that meets the requirements of this chapter;
- (10) By October 1992, prepare and implement the statewide emergency medical services and trauma care system plan incorporating the regional plans;
- (11) Coordinate the statewide emergency medical services and trauma care system to assure integration and smooth operation between the regions;
- (12) Facilitate coordination between the emergency medical services and trauma care steering committee and the emergency medical services licensing and certification advisory committee;
- (13) Monitor the statewide emergency medical services and trauma care system;
- (14) Conduct a study of all costs, charges, expenses, and levels of reimbursement associated with providers of trauma care services, and provide its findings and any recommendations regarding adequate and equitable reimbursement to trauma care providers to the legislature by July 1, 1991;
- (15) Monitor the level of public and private payments made on behalf of trauma care patients to determine whether health care providers have been adequately reimbursed for the costs of care rendered such persons;
- (16) By July 1991, design and establish the state-wide trauma care registry as authorized in RCW 70.168.090 to (a) assess the effectiveness of emergency medical services and trauma care delivery, and (b) modify standards and other system requirements to improve the provision of emergency medical services and trauma care;
- (17) By July 1991, develop patient outcome measures to assess the effectiveness of emergency medical services and trauma care in the system;
- (18) By July 1993, develop standards for regional emergency medical services and trauma care quality assurance programs required in RCW 70.168.090;
- (19) Administer funding allocated to the department for the purpose of creating, maintaining, or enhancing the state-wide emergency medical services and trauma care system; and
- (20) By October 1990, begin coordination and development of trauma prevention and education programs.

[1990 c 269 § 8.]

RCW 70.168.070

Provision of trauma care service -- Designation.

Any hospital or health care facility that desires to be authorized to provide a designated trauma care service shall request designation from the department. Designation involves a

contractual relationship between the state and a hospital or health care facility whereby each agrees to maintain a level of commitment and resources sufficient to meet responsibilities and standards required by the statewide emergency medical services and trauma care system plan. By January 1992, the department shall determine by rule the manner and form of such requests.

Upon receiving a request, the department shall review the request to determine whether the hospital or health care facility is in compliance with standards for the trauma care service or services for which designation is desired. If requests are received from more than one hospital or health care facility within the same emergency medical planning and trauma care planning and service region, the department shall select the most qualified applicant or applicants to be selected through a competitive process. Any applicant not designated may request a hearing to review the decision.

Designations are valid for a period of three years and are renewable upon receipt of a request for renewal prior to expiration from the hospital or health care facility. When an authorization for designation is due for renewal other hospitals and health care facilities in the area may also apply and compete for designation. Regional emergency medical and trauma care councils shall be notified promptly of designated hospitals and health care facilities in their region so they may incorporate them into the regional plan as required by this chapter. The department may revoke or suspend the designation should it determine that the hospital or health care facility is substantially out of compliance with the standards and has refused or been unable to comply after a reasonable period of time has elapsed. The department shall promptly notify the regional emergency medical and trauma care planning and service region of suspensions or revocations. Any facility whose designation has been revoked or suspended may request a hearing to review the action by the department as provided for in chapter 34.05 RCW.

As a part of the process to designate and renew the designation of hospitals authorized to provide level I, II, or III trauma care services or level I, II, and III pediatric trauma care services, the department shall contract for on-site reviews of such hospitals to determine compliance with required standards. The department may contract for on-site reviews of hospitals and health care facilities authorized to provide level IV or V trauma care services or level I, I-pediatric, II, or III trauma-related rehabilitative services to determine compliance with required standards. Members of on-site review teams and staff included in site visits are exempt from RCW 42.17.250 through 42.17.450. They may not divulge and cannot be subpoenaed to divulge information obtained or reports written pursuant to this section in any civil action, except, after in camera review, pursuant to a court order which provides for the protection of sensitive information of interested parties including the department: (1) In actions arising out of the department's designation of a hospital or health care facility pursuant to this section; (2) in actions arising out of the department's revocation or suspension of designation status of a hospital or health care facility under this section; or (3) in actions arising out of the restriction or revocation of the clinical or staff privileges of a health care provider as defined in *RCW 70.70.020 (1) and (2), subject to any further restrictions on disclosure in RCW 4.24.250 that may apply. Information that identifies individual patients shall not be publicly disclosed without the patient's consent. When a facility requests designation for more than one service, the department may coordinate the joint consideration of such requests.

The department may establish fees to help defray the costs of this section, though such fees shall not be assessed to health care facilities authorized to provide level IV and V trauma care services.

This section shall not restrict the authority of a hospital or a health care provider licensed under Title 18 RCW to provide services which it has been authorized to provide by state law.

[1990 c 269 § 9.]

NOTES:

***Reviser's note:** The reference to RCW 70.70.020 appears to be erroneous. RCW 7.70.020 was apparently intended.

RCW 70.168.080

Prehospital trauma care service -- Verification -- Compliance -- Variance.

(1) Any provider desiring to provide a verified prehospital trauma care service shall indicate on the licensing application how they meet the standards required for verification as a provider of this service. The department shall notify the regional emergency medical services and trauma care councils of the providers of verified trauma care services in their regions. The department may conduct on-site reviews of prehospital providers to assess compliance with the applicable standards.

(2) Should the department determine that a prehospital provider is substantially out of compliance with the standards, the department shall notify the regional emergency medical services and trauma care council. If the failure of a prehospital provider to comply with the applicable standards results in the region being out of compliance with its regional plan, the council shall take such steps necessary to assure the region is brought into compliance within a reasonable period of time. The council may seek assistance and funding from the department and others to provide training or grants necessary to bring a prehospital provider into compliance. The council may appeal to the department for modification of the regional plan if it is unable to assure continued compliance with the regional plan. The department may authorize modification of the plan if such modifications meet the requirements of this chapter.

The department may suspend or revoke the authorization of a prehospital provider to provide a verified prehospital service if the provider has refused or been unable to comply after a reasonable period of time has elapsed. The council shall be notified promptly of any revocations or suspensions. Any prehospital provider whose verification has been suspended or revoked may request a hearing to review the action by the department as provided for in chapter 34.05 RCW.

(3) The department may grant a variance from provisions of this section if the department determines: (a) That no detriment to public health and safety will result from the variance, and (b) compliance with provisions of this section will cause a reduction or loss of existing prehospital services. Variances may be granted for a period not to exceed one year. A variance may be renewed by the department. If a renewal is granted, a plan of compliance shall be prepared specifying steps necessary to bring a provider or region into compliance and expected date of compliance.

(4) This section shall not restrict the authority of a provider licensed under Title 18 RCW to provide services which it has been authorized to provide by state law.

[1990 c 269 § 10.]

RCW 70.168.090

State-wide data registry -- Quality assurance program -- Confidentiality.

(1) By July 1991, the department shall establish a state-wide data registry to collect and analyze data on the incidence, severity, and causes of trauma, including traumatic brain injury. The department shall collect additional data on traumatic brain injury should additional data requirements be enacted by the legislature. The registry shall be used to improve the availability and delivery of prehospital and hospital trauma care services. Specific data elements of the registry shall be defined by rule by the department. To the extent possible, the department shall coordinate data collection from hospitals for the trauma registry with the *statewide hospital data system authorized in chapter 70.170 RCW. Every hospital, facility, or health care provider authorized to provide level I, II, III, IV, or V trauma care services, level I, II, or III pediatric trauma care services, level I, level I-pediatric, II, or III trauma-related rehabilitative services, and prehospital trauma-related services in the state shall furnish data to the registry. All other hospitals and prehospital providers shall furnish trauma data as required by the department by rule.

The department may respond to requests for data and other information from the registry for special studies and analysis consistent with requirements for confidentiality of patient and quality assurance records. The department may require requestors to pay any or all of the reasonable costs associated with such requests that might be approved.

(2) By January 1994, in each emergency medical services and trauma care planning and service region, a regional emergency medical services and trauma care systems quality assurance program shall be established by those facilities authorized to provide levels I, II, and III trauma care services. The systems quality assurance program shall evaluate trauma care delivery, patient care outcomes, and compliance with the requirements of this chapter. The emergency medical services medical program director and all other health care providers and facilities who provide trauma care services within the region shall be invited to participate in the regional emergency medical services and trauma care quality assurance program.

(3) Data elements related to the identification of individual patient's, provider's and facility's care outcomes shall be confidential, shall be exempt from RCW 42.17.250 through 42.17.450, and shall not be subject to discovery by subpoena or admissible as evidence.

(4) Patient care quality assurance proceedings, records, and reports developed pursuant to this section are confidential, exempt from RCW 42.17.250 through 42.17.450, and are not subject to discovery by subpoena or admissible as evidence. In any civil action, except, after in camera review, pursuant to a court order which provides for the protection of sensitive information of interested parties including the department: (a) In actions arising out of the department's designation of a hospital or health care facility pursuant to RCW 70.168.070; (b) in actions arising out of the department's revocation or suspension of designation status of a hospital or health care facility under RCW 70.168.070; or (c) in actions arising out of the restriction or revocation of the clinical or staff privileges of a health care provider as defined in RCW 7.70.020 (1) and (2), subject to any further restrictions on disclosure in RCW 4.24.250 that may apply. Information that identifies individual patients shall not be publicly disclosed without the patient's consent.

[1990 c 269 § 11.]

NOTES:

***Reviser's note:** The "state-wide hospital data system" was redesignated as the "health care data system" by 1993 c 492 § 259.

RCW 70.168.100

Regional emergency medical services and trauma care councils.

Regional emergency medical services and trauma care councils are established. The councils shall:

(1) By June 1990, begin the development of regional emergency medical services and trauma care plans to:

- (a) Assess and analyze regional emergency medical services and trauma care needs;
- (b) Identify personnel, agencies, facilities, equipment, training, and education to meet regional and local needs;
- (c) Identify specific activities necessary to meet statewide standards and patient care outcomes and develop a plan of implementation for regional compliance;
- (d) Establish and review agreements with regional providers necessary to meet state standards;
- (e) Establish agreements with providers outside the region to facilitate patient transfer;
- (f) Include a regional budget;
- (g) Establish the number and level of facilities to be designated which are consistent with state standards and based upon availability of resources and the distribution of trauma within the region;
- (h) Identify the need for and recommend distribution and level of care of prehospital services to assure adequate availability and avoid inefficient duplication and lack of coordination of prehospital services within the region; and
- (i) Include other specific elements defined by the department;

(2) By June 1991, begin the submission of the regional emergency services and trauma care plan to the department;

(3) Advise the department on matters relating to the delivery of emergency medical services and trauma care within the region;

(4) Provide data required by the department to assess the effectiveness of the emergency medical services and trauma care system;

(5) May apply for, receive, and accept gifts and other payments, including property and service, from any governmental or other public or private entity or person, and may make arrangements as to the use of these receipts, including any activities related to the design, maintenance, or enhancements of the emergency medical services and trauma care system in the region. The councils shall report in the regional budget the amount, source, and purpose of all gifts and payments.

[1990 c 269 § 13.]

RCW 70.168.110

Planning and service regions.

The department shall designate at least eight emergency medical services and trauma care planning and service regions so that all parts of the state are within such an area. These regional designations are to be made on the basis of efficiency of delivery of needed emergency medical services and trauma care.

[1990 c 269 § 14; 1987 c 214 § 4; 1973 1st ex.s. c 208 § 6. Formerly RCW 18.73.060.]

RCW 70.168.120

Local and regional emergency medical services and trauma care councils -- Power and duties.

(1) A county or group of counties may create a local emergency medical services and trauma care council composed of representatives of hospital and prehospital trauma care and emergency medical services providers, local elected officials, consumers, local law enforcement officials, and local government agencies involved in the delivery of emergency medical services and trauma care.

(2) The department shall establish regional emergency medical services and trauma care councils and shall appoint members to be comprised of a balance of hospital and prehospital trauma care and emergency medical services providers, local elected officials, consumers, local law enforcement representatives, and local government agencies involved in the delivery of trauma care and emergency medical services recommended by the local emergency medical services and trauma care councils within the region.

(3) Local emergency medical services and trauma care councils shall review, evaluate, and provide recommendations to the regional emergency medical services and trauma care council regarding the provision of emergency medical services and trauma care in the region, and provide recommendations to the regional emergency medical services and trauma care councils on the plan for emergency medical services and trauma care.

[1990 c 269 § 15; 1987 c 214 § 6; 1983 c 112 § 8. Formerly RCW 18.73.073.]

RCW 70.168.130

Disbursement of funds to regional emergency medical services and trauma care councils -- Grants to nonprofit agencies -- Purposes.

(1) The department, with the assistance of the emergency medical services and trauma care steering committee, shall adopt a program for the disbursement of funds for the development, implementation, and enhancement of the emergency medical services and trauma care system.

Under the program, the department shall disburse funds to each emergency medical services and trauma care regional council, or their chosen fiscal agent or agents, which shall be city or county governments, stipulating the purpose for which the funds shall be expended. The regional emergency medical services and trauma care council shall use such funds to make available matching grants in an amount not to exceed fifty percent of the cost of the proposal for which the grant is made; provided, the department may waive or modify the matching requirement if it determines insufficient local funding exists and the public health and safety would be jeopardized if the proposal were not funded. Grants shall be made to any public or private nonprofit agency, which, in the judgment of the regional emergency medical services and trauma care council, will best fulfill the purpose of the grant.

(2) Grants may be awarded for any of the following purposes:

(a) Establishment and initial development of an emergency medical services and trauma care system;

(b) Expansion and improvement of an emergency medical services and trauma care system;

(c) Purchase of equipment for the operation of an emergency medical services and trauma care system;

(d) Training and continuing education of emergency medical and trauma care personnel; and

(e) Department approved research and development activities pertaining to emergency medical services and trauma care.

(3) Any emergency medical services agency or trauma care provider which receives a grant shall stipulate that it will:

(a) Operate in accordance with applicable provisions and standards required under this chapter;

(b) Provide, without prior inquiry as to ability to pay, emergency medical and trauma care to all patients requiring such care; and

(c) Be consistent with applicable provisions of the regional emergency medical services and trauma care plan and the statewide emergency medical services and trauma care system plan.

[1990 c 269 § 16; 1987 c 214 § 8; 1979 ex.s. c 261 § 8. Formerly RCW 18.73.085.]

RCW 70.168.135

Grant program for designated trauma care services -- Rules.

The department shall establish by rule a grant program for designated trauma care services. The grants shall be made from the emergency medical services and trauma care system trust account and shall require regional matching funds. The trust account funds and regional match shall be in a seventy-five to twenty-five percent ratio.

[1997 c 331 § 1.]

NOTES:

Effective date -- 1997 c 331: "Sections 1 through 8 of this act take effect January 1, 1998."
[1997 c 331 § 11.]

RCW 70.168.140

Prehospital provider liability.

(1) No act or omission of any prehospital provider done or omitted in good faith while rendering emergency medical services in accordance with the approved regional plan shall impose any liability upon that provider.

(2) This section does not apply to the commission or omission of an act which is not within the field of the medical expertise of the provider.

(3) This section does not relieve a provider of any duty otherwise imposed by law.

(4) This section does not apply to any act or omission which constitutes gross negligence or willful or wanton misconduct.

(5) This section applies in addition to provisions already established in RCW 18.71.210.

[1990 c 269 § 26.]

RCW 70.168.900**Short title.**

This chapter shall be known and cited as the "state-wide emergency medical services and trauma care system act."

[1990 c 269 § 2.]

RCW 70.168.901**Severability -- 1990 c 269.**

If any provision of this act or its application to any person or circumstance is held invalid, the remainder of the act or the application of the provision to other persons or circumstances is not affected.

[1990 c 269 § 30.]

Appendix D

REGIONAL SUPPORT PROCESS HANDBOOK

BIENNIAL PLAN REVIEW & APPROVAL PROCESS

Regional councils must use the Biennial Plan Format provided by DOH to develop a Biennial Plan. They must adopt and submit their Biennial Plans to DOH by June 30 of odd-numbered years.

Step #1 Review of each regional plan is conducted on both an internal and external track, with Department of Health (DOH) staff providing the internal review, and a subcommittee appointed by the EMS and Trauma Care Steering Committee (SC) providing the external review.

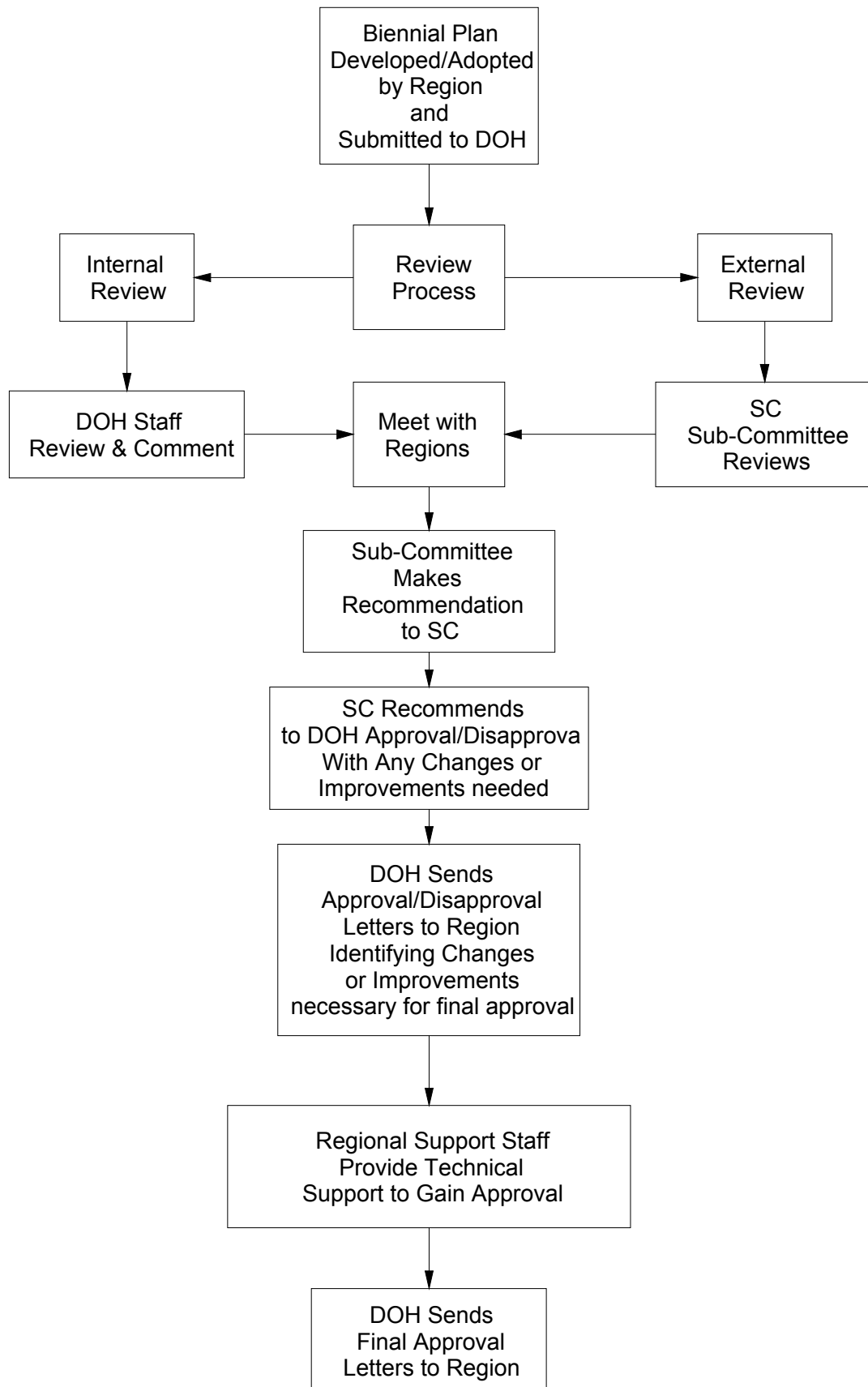
Step #2 Comments from the DOH staff review are passed along to both the region and the SC Subcommittee. The SC Subcommittee meets with DOH staff and the regional chairs and staff to complete the plan review.

Step #3 DOH then notifies the regions in writing regarding comments and suggestions made by DOH staff and the SC subcommittee in regard to the submitted plan content.

Step #4 The plans are revised accordingly, and the SC Subcommittee makes recommendation to the SC.

Step #5 The SC makes a recommendation to DOH on the approval/disapproval of the plan, including suggestions for changes and improvements in the plan. DOH then notifies the regions regarding their plan approval/disapproval, and outlines changes, if any, which need to be made in the regional plan prior to final DOH approval of the regional plan.

BIENNIAL PLAN REVIEW & APPROVAL

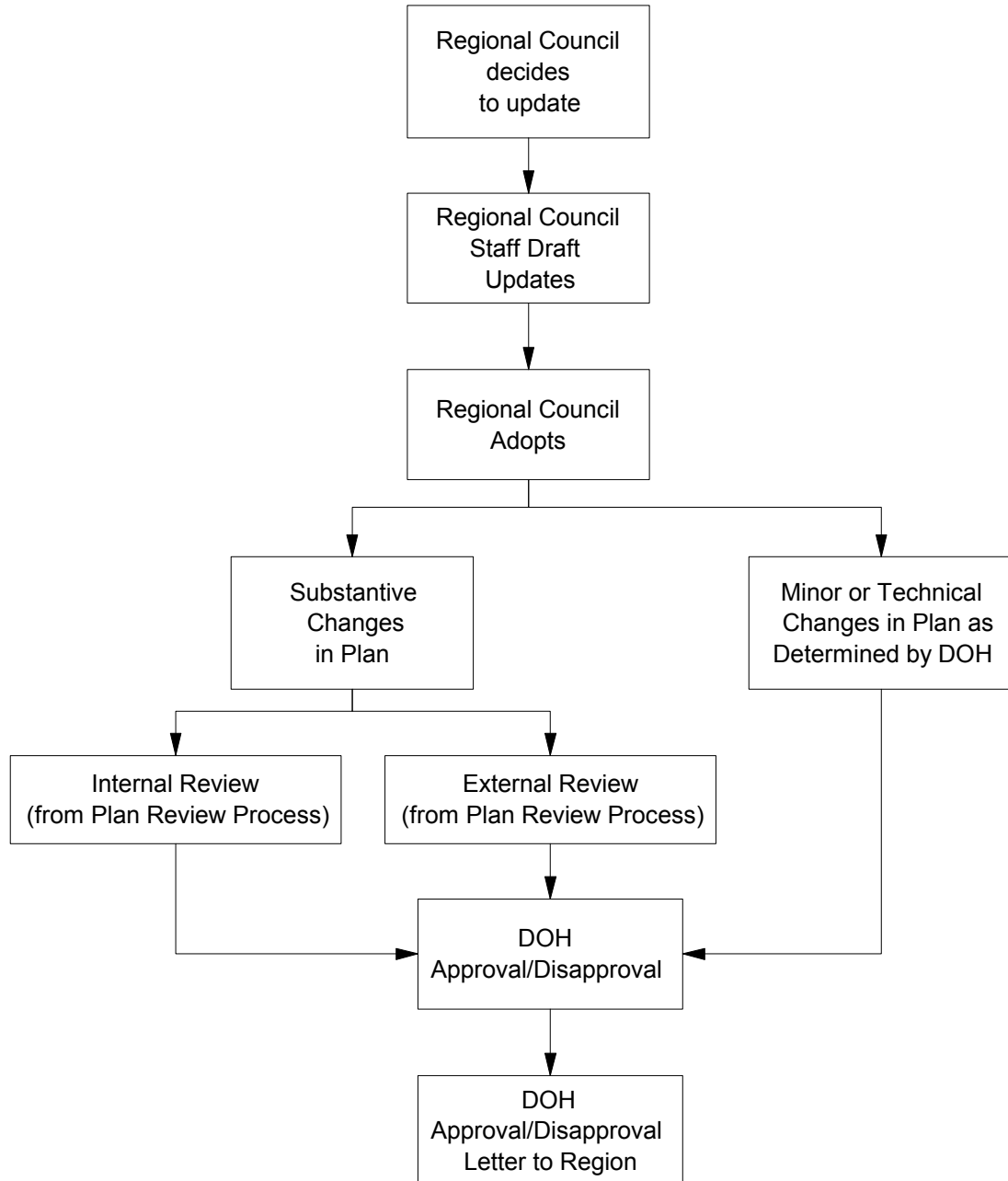


REGIONAL BIENNIAL PLAN UPDATE PROCESS

Regional councils may revise and/or update their approved regional EMS and Trauma Care (EMS/TC) Biennial Plan as needed. Such updates may be made at any time and contain minor changes and technical clarification to the plan.

- Step #1** A regional council can determine that a portion of the current approved regional plan needs to be updated.
- Step #2** Regional staff, at regional council direction, drafts an update of that portion of the plan, which is subsequently adopted by the regional council.
- Step #3** The updated portion of the plan is submitted to DOH for approval.
- Step #4** If the proposed changes are minor or provide technical clarification, the DOH Regional Support staff will review and approve or disapprove the proposed changes.
- Step #5** If the proposed changes are other than minor and technical, the two-track process for plan review will be initiated, wherein DOH staff and SC Subcommittee review the proposed changes, and the SC makes a recommendation to DOH regarding approval/disapproval of the proposed changes.

REGIONAL BIENNIAL PLAN UPDATE PROCESS

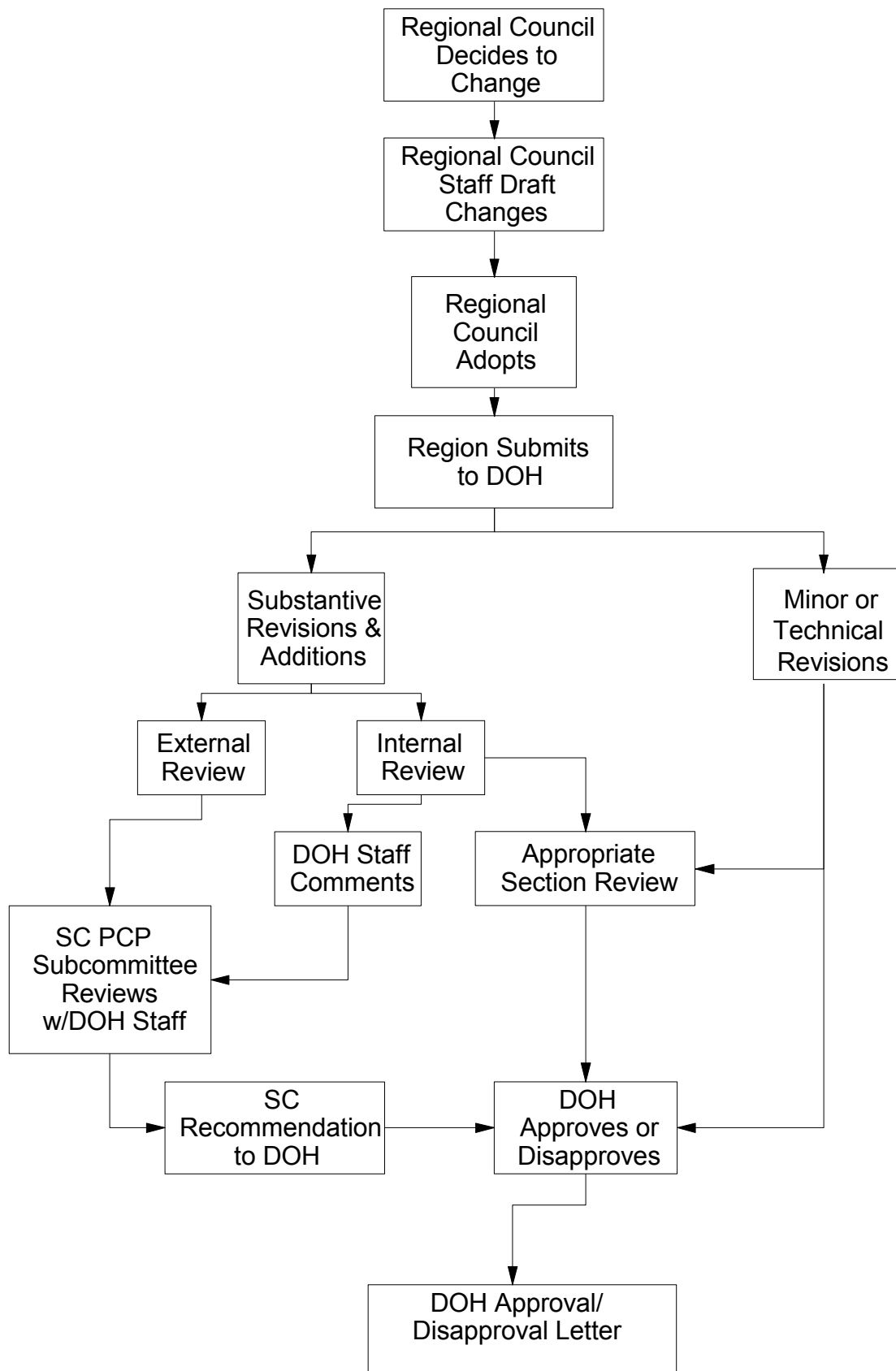


PCP ADDITIONS, UPDATES & REVISIONS PROCESS

All regions currently have regional council-adopted and DOH-approved regional Patient Care Procedures (PCPs). Revisions or additions to these DOH-approved PCPs may be made.

- Step #1** Regional council determines regional PCPs should be added, updated or revised.
- Step #2** Regional council staff may draft changes after consulting with regional council members and DOH staff as necessary.
- Step #3** Regional council may adopt PCP changes and submit to DOH for approval.
- Step #4** If proposed changes are minor or technical in nature, DOH staff will review and approve or disapprove the proposed changes in writing.
- Step #5** If the proposed changes are substantive or a new PCP, DOH staff will review and provide a SC PCP review subcommittee with comments on the proposed changes.
- Step #6** The SC subcommittee will review the proposed changes and report back to the SC regarding recommendation for approval or disapproval of the proposed changes.
- Step #7** The SC will provide a recommendation to DOH, which will then approve or disapprove the proposed changes in writing to the region.

PCP ADDITIONS, UPDATES & REVISIONS PROCESS

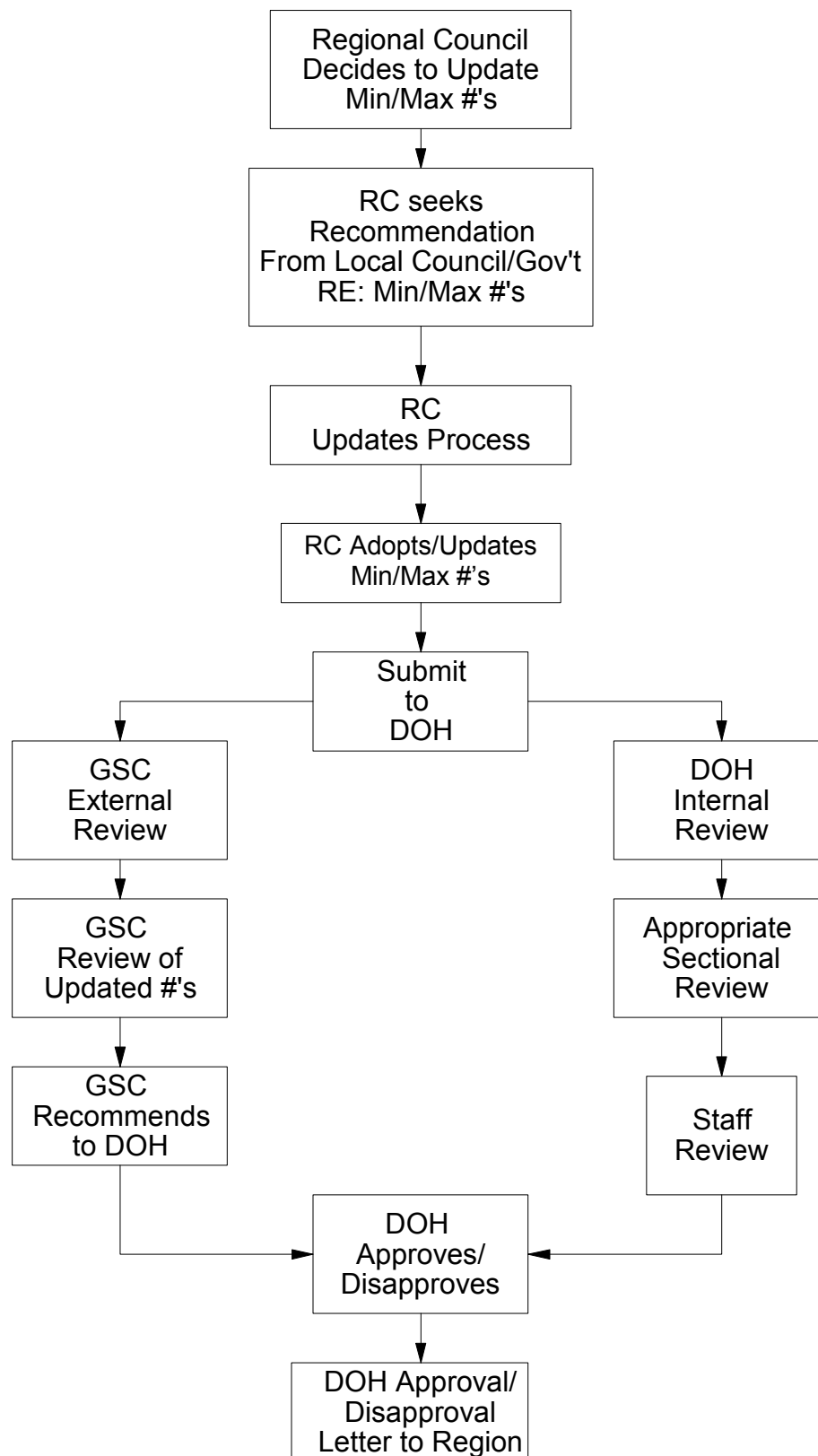


VERIFIED PREHOSPITAL SERVICES MIN/MAX NUMBERS PROCESS

Regional minimum/maximum (min/max) numbers shall be found in the most current DOH-approved Regional Plan. Regional Councils shall seek recommendations from local EMS/TC Councils and local government regarding min/max numbers.

- Step #1** Regional Council determines it should update prehospital verified services min/max numbers.
- Step #2** Regional council updates min/max numbers and adopts them for inclusion in the regional plan.
- Step #3** Updated regional plan is submitted to DOH for approval.
- Step #4** DOH staff will review plan and provide the SC plan review subcommittee with comments on the proposed changes.
- Step #5** The SC subcommittee will review the proposed changes and report back to the SC regarding a recommendation for approval or disapproval of the proposed changes in min/max numbers.
- Step #6** The SC provides recommendation to DOH regarding the approval or disapproval of min/max numbers.
- Step #7** DOH sends approval/disapproval letter to the region.

VERIFIED PREHOSPITAL SERVICES MIN/MAX #'S

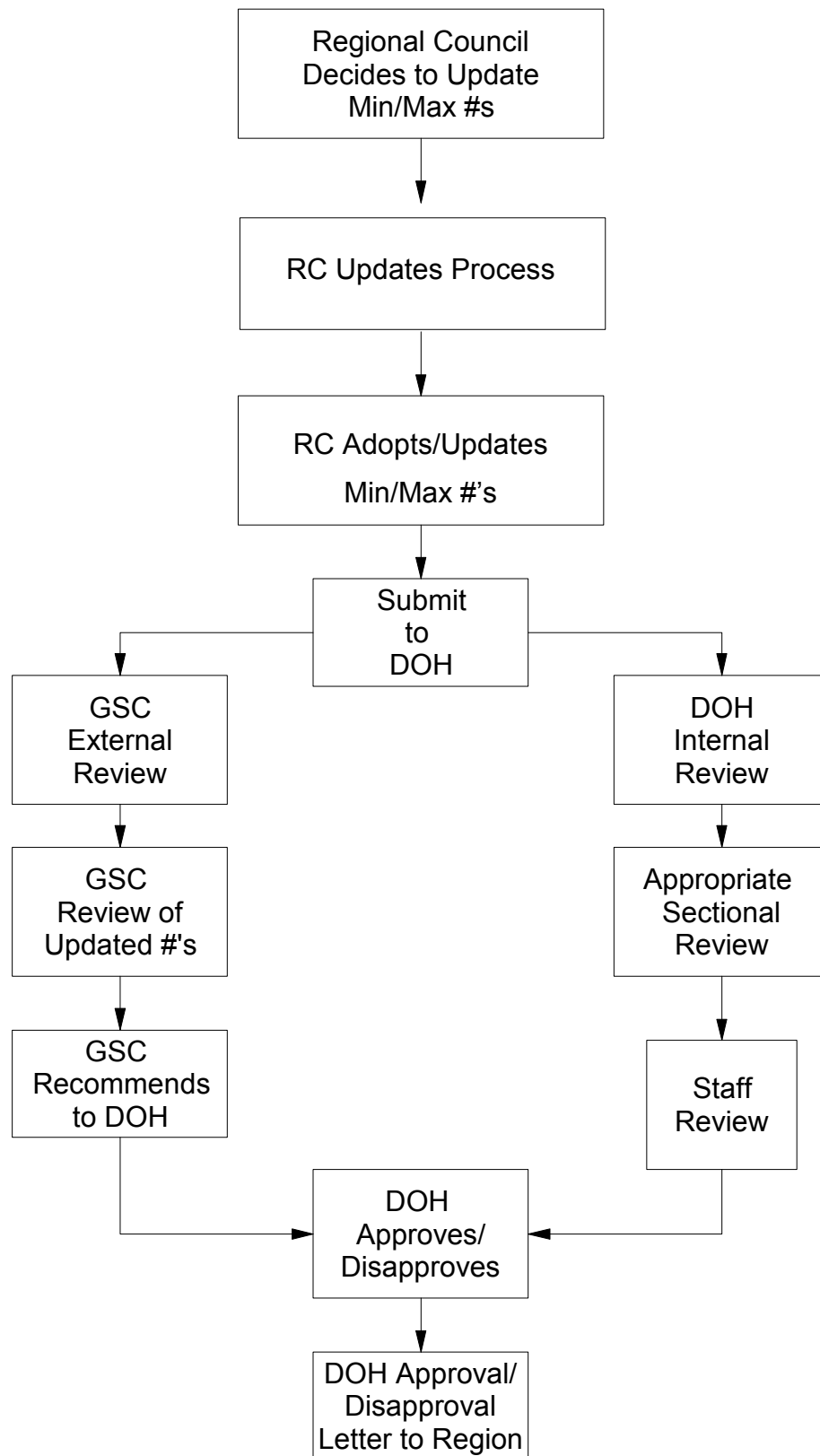


DESIGNATED TRAUMA/REHABILITATION FACILITIES MIN/MAX #'s

Regional min/max numbers shall be found in the DOH-approved Regional Plan.

- Step #1** Regional Council determines it should update designated trauma/rehabilitation min/max numbers.
- Step #2** Regional council updates min/max numbers and adopts them for inclusion in the regional plan.
- Step #3** Updated regional plan is submitted to DOH for approval.
- Step #4** DOH staff will review plan and provide the SC subcommittee with comments on the proposed changes.
- Step #5** The SC subcommittee will review the proposed changes and report back to the SC regarding a recommendation for approval or disapproval of the proposed changes in min/max numbers.
- Step #6** The SC will provide recommendation to DOH regarding the approval or disapproval of min/max numbers.
- Step #7** DOH sends approval/disapproval letter to the region.

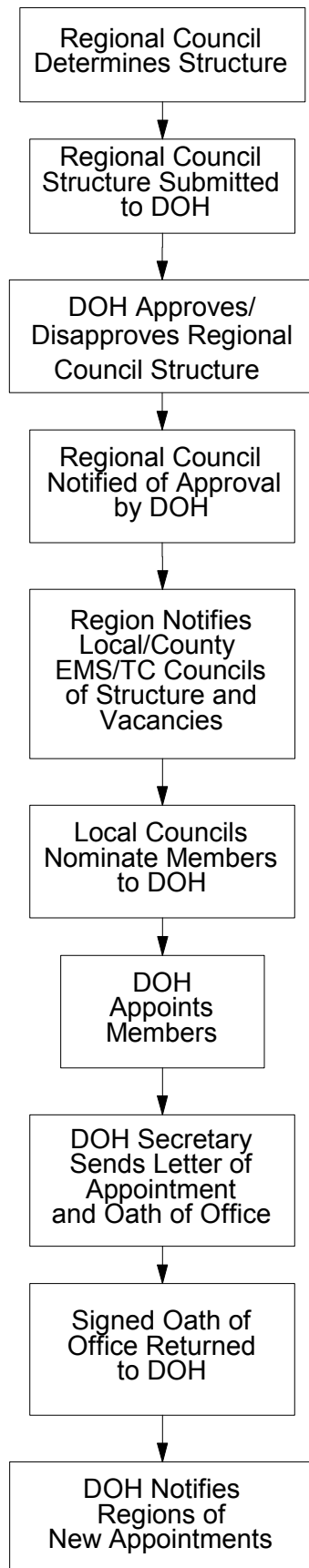
DESIGNATED TRAUMA/REHAB FACILITIES MIN/MAX #'s PROCESS



COUNCIL MEMBERSHIP PROCESS

- Step #1** Regional council determines its structure, consistent with RCW 70.168.120(2), and submits proposal to DOH for approval.
- Step #2** DOH approves or disapproves the proposed structure and notifies the region.
- Step #3** If approved, the region notifies local/county EMS/TC councils regarding the structures of the regional EMS/TC council and advises them of all vacancies on the councils.
- Step #4** Local and county councils make nominations to DOH for representatives on the regional EMS/TC council.
- Step #5** DOH appoints representatives to the regional council and sends letter of appointment and oath of office to newly appointed member.
- Step #6** Member signs the oath and returns it to DOH.
- Step #7** DOH notifies the regional council of the new appointment.

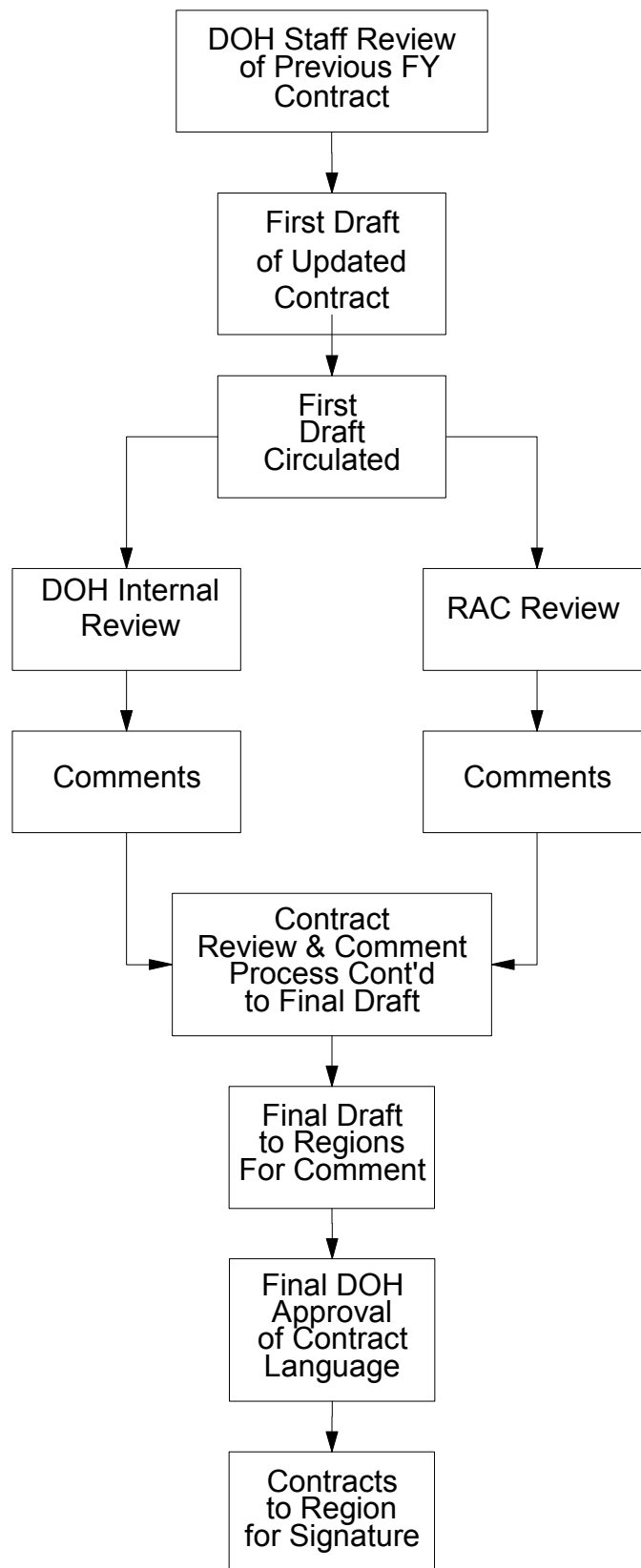
COUNCIL MEMBERSHIP PROCESS



CONTRACT DEVELOPMENT PROCESS

- Step #1** DOH staff review previous contract and draft updated version.
- Step #2** Draft contract circulated among DOH staff and to Regional Advisory Committee (RAC) members.
- Step #3** DOH staff and RAC members provide comments and suggestions regarding content of contract. Review and comment process continues until final draft contract.
- Step #4** DOH staff meet with each Regional Council to develop the specific contract language for that region.
- Step #5** DOH approves final contract language and inserts final regional funding amounts.
- Step #6** Contracts are sent to regional councils for regional Chair/President signature, and returned to DOH for processing and signature by DOH Contracts Officer.

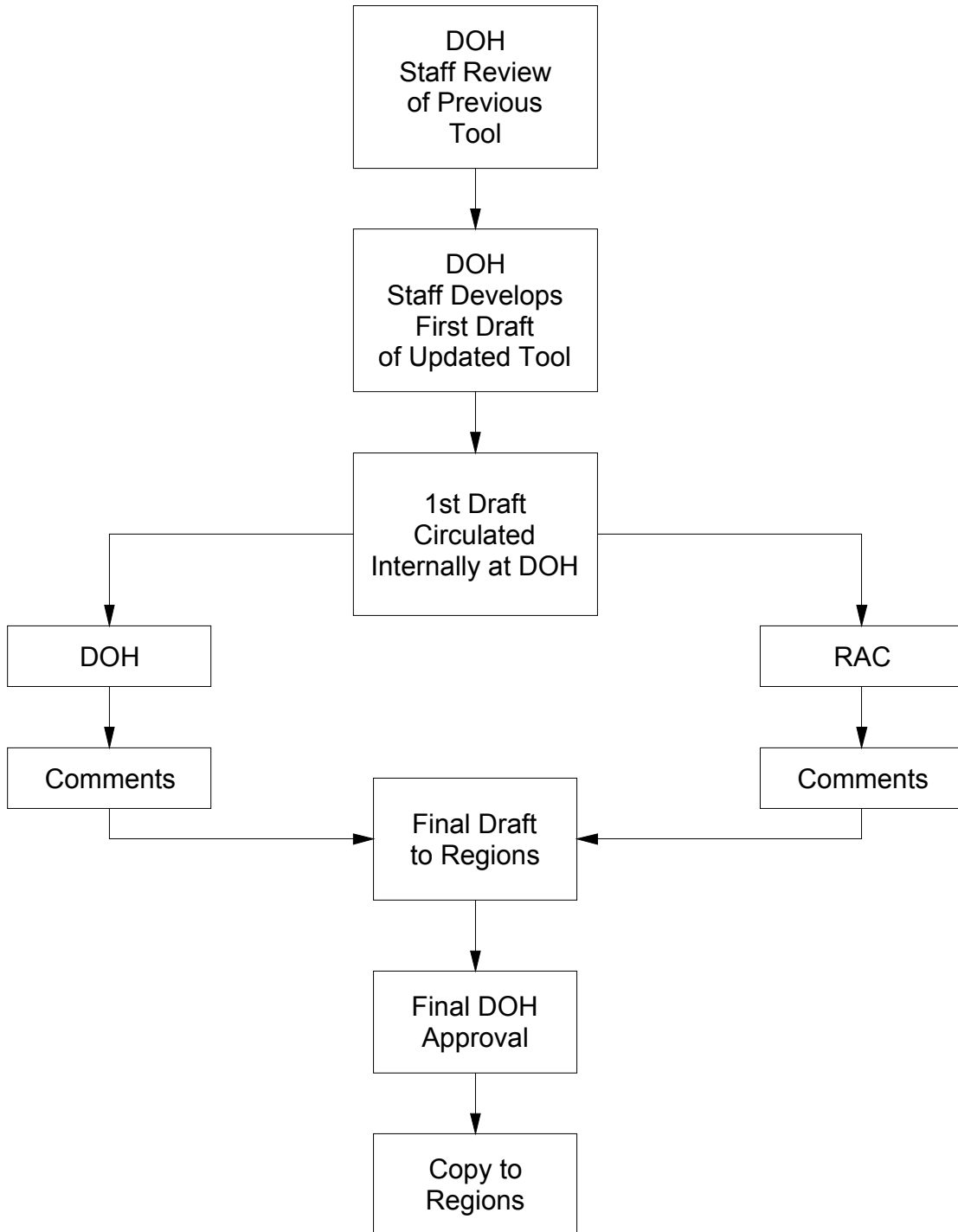
CONTRACT DEVELOPMENT PROCESS



BIENNIAL PLAN EVALUATION TOOL DEVELOPMENT PROCESS

- Step #1** DOH staff review previous plan evaluation tool and develop draft updated tool based on current plan format.
- Step #2** Draft tool is circulated to DOH staff and to RAC members.
- Step #3** Final comments are incorporated into draft and final draft is circulated to DOH staff and to RAC members.
- Step #4** DOH approves final plan evaluation tool and tool is circulated to regions and SC plan review subcommittee.

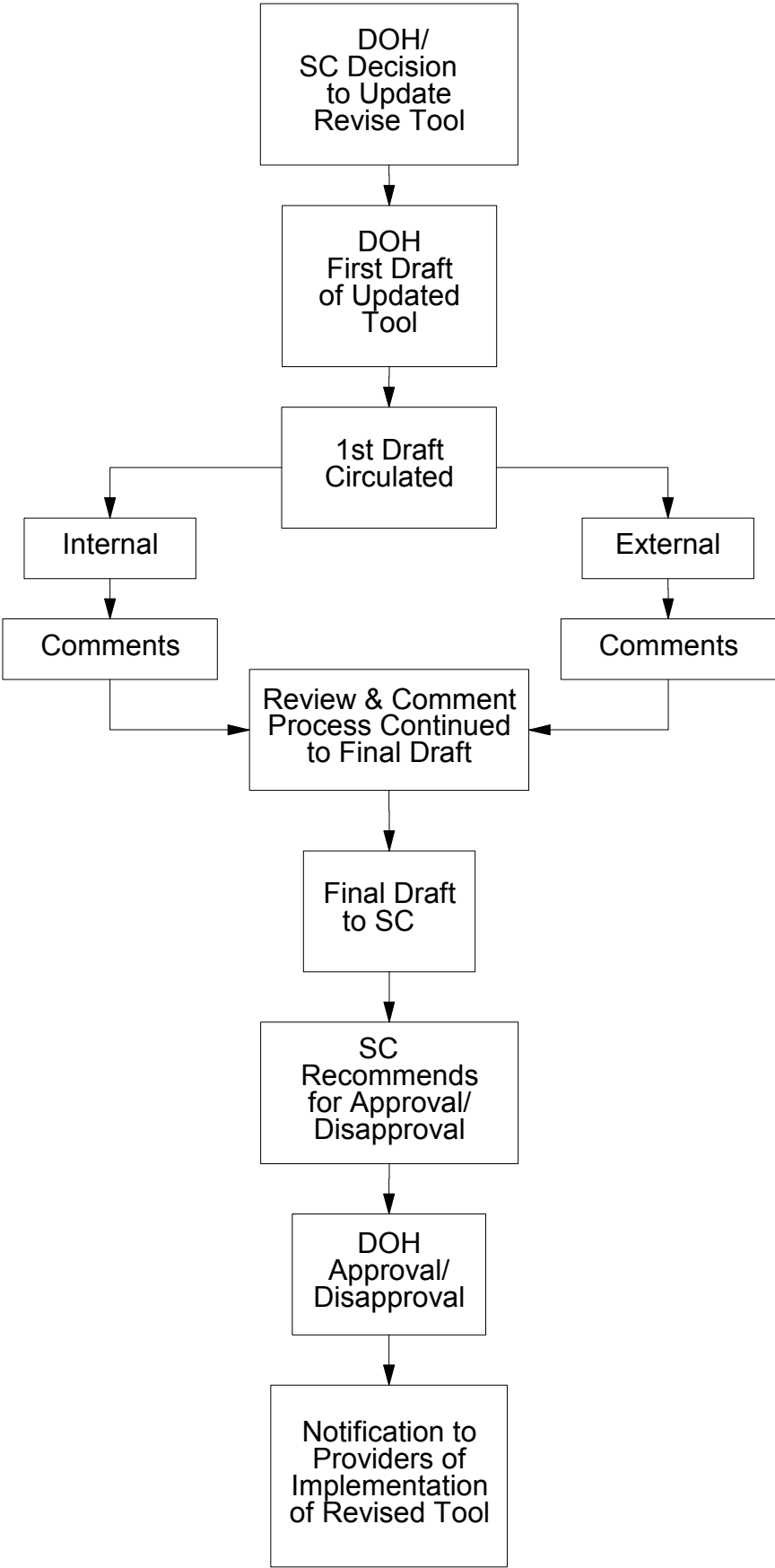
BIENNIAL PLAN EVALUATION TOOL DEVELOPMENT PROCESS



TRAUMA TRIAGE TOOL (TTT) REVISION PROCESS

- Step #1** SC recommendation/DOH decision to revise the TTT.
- Step #2** Based on SC discussions on content of revised TTT, DOH drafts revised TTT.
- Step #3** Revised draft TTT is circulated internally in DOH for review and comment, as well as to SC members, and to the EMS/TC community statewide.
- Step #4** The review and comment process continues, focused at the SC level, until formal SC recommendation to DOH on TTT revision occurs.
- Step #5** DOH then approves the revised TTT, and notifies state EMS/TC providers concerning implementation of the revised TTT.

TRAUMA TRIAGE TOOL REVISION PROCESS



DATA SUBMISSION PROCESS

Prehospital agencies own their own data and are required to submit their agency data to DOH.

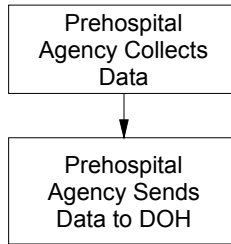
MAIN PROCESS: Agency submits data directly to DOH.

ALTERNATE PROCESS: Agencies may choose to have a vendor or another entity collect their data and submit it to DOH.

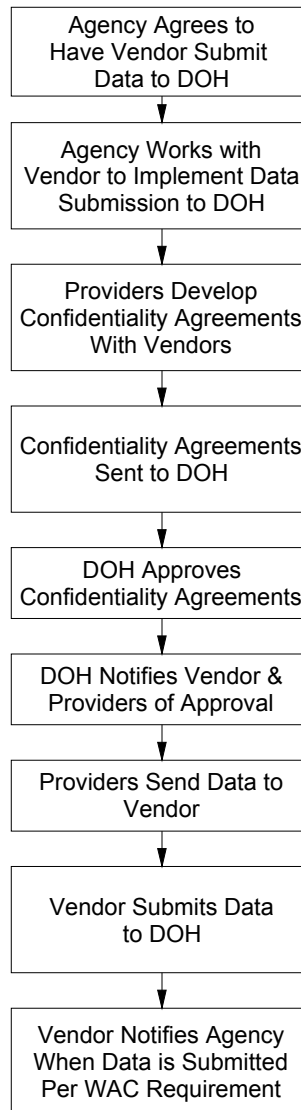
- Step #1** DOH works with provider agencies to implement agency data submission, including developing a confidentiality agreement between agencies and the vendor or other entity.
- Step #2** Confidentiality agreement is submitted to DOH for approval.
- Step #3** DOH then notifies both the provider agencies and the vendor of DOH approval of confidentiality agreement, and agency data submission to the vendor begins.
- Step #4** The vendor then begins to submit data collected to DOH on a regular basis, per the data submission requirements adopted by DOH.
- Step #5** Vendor notifies agency when their data has been submitted to document meeting WAC requirement.

DATA SUBMISSION PROCESS

MAIN METHOD



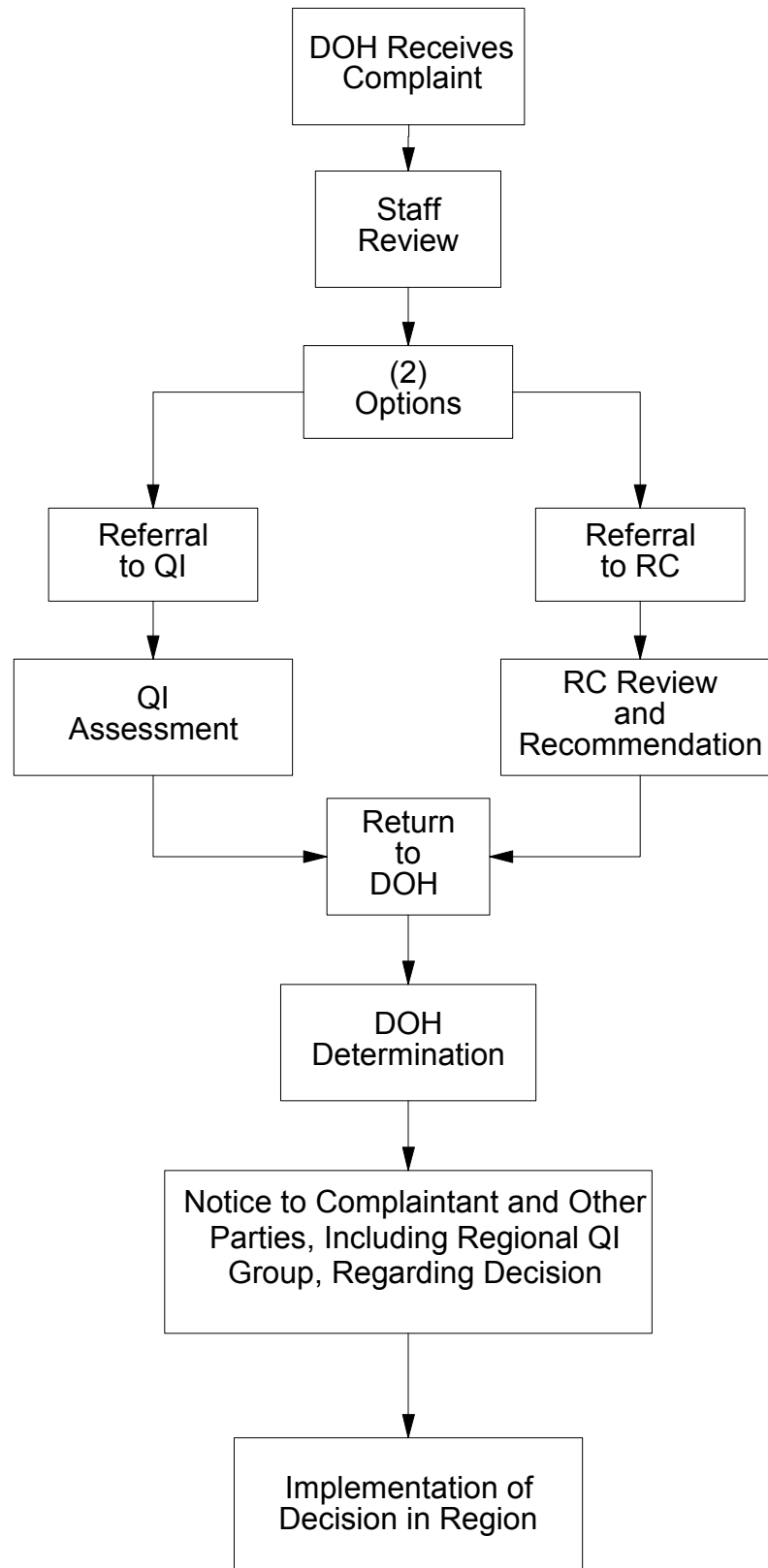
ALTERNATE METHOD



RESOLUTION OF NON-DISCIPLINARY COMPLAINTS PROCESS REGARDING PATIENT CARE PROCEDURES (PCPs)

- Step #1** DOH receives a complaint concerning patient care, as that care is provided under the auspices of the DOH-approved regional PCPs.
- Step #2** DOH staff review the complaint, and if appropriate, refer the complaint to the Regional QI group regarding patient care, or to the regional council regarding system issues. The next steps for these options are:
- A. Regarding patient care or patient outcome issues, the regional QI conducts an assessment of the complaint. When the regional QI assessment has been completed, that assessment is forwarded to the regional council along with any appropriate recommendation. The regional council then reviews the QI assessment and recommendation, if any, and forwards the assessment and recommendation to DOH.
 - B. Regarding system issues, the regional council conducts an assessment of the complaint. That assessment, together with any appropriate recommendation, is forwarded to DOH.
- Step #3** DOH makes a determination regarding the complaint and notifies parties involved, including the regional QI group.
- Step #4** DOH determination is implemented within the region.

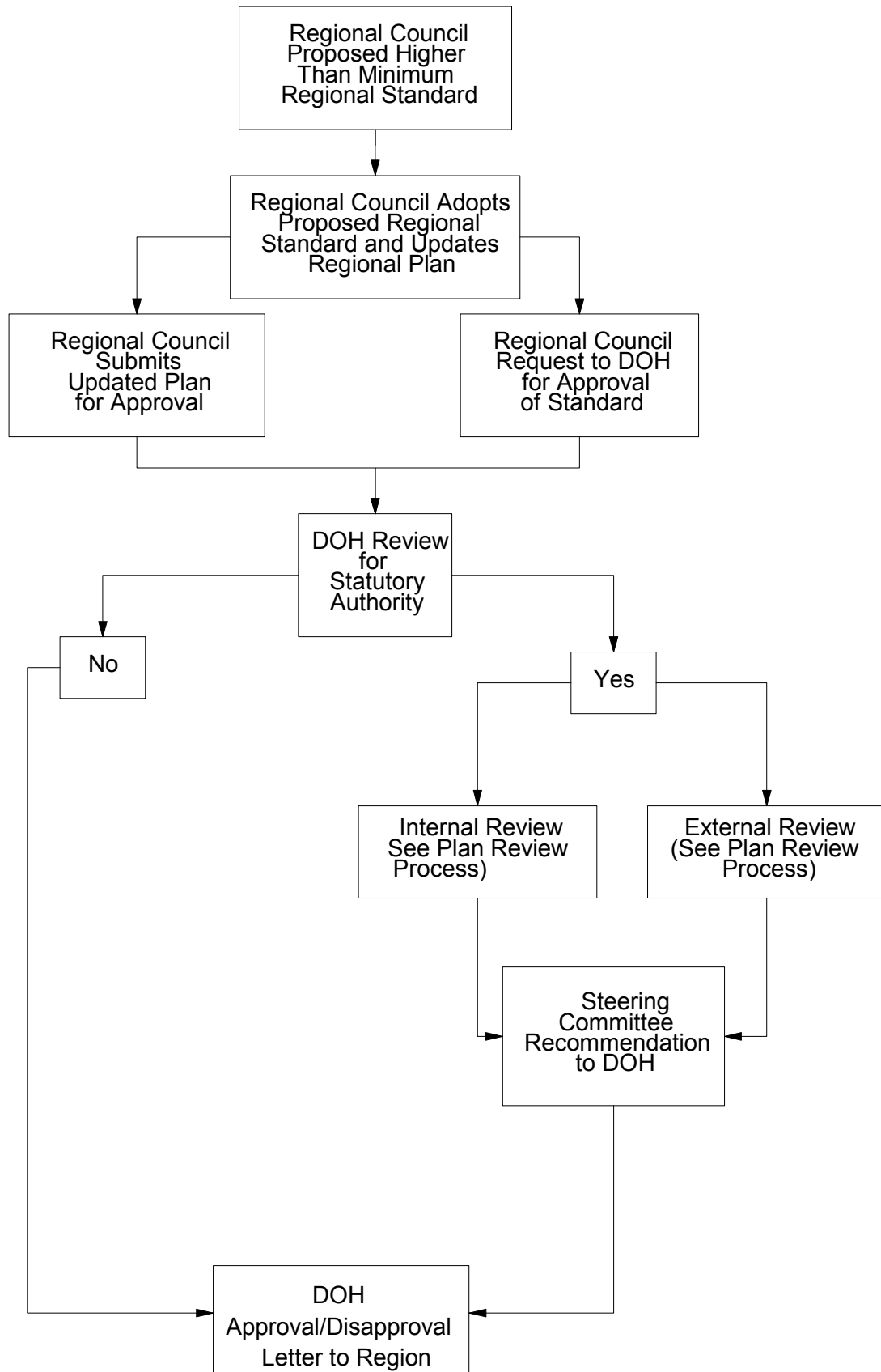
RESOLUTION OF COMPLAINTS PROCESS RE: PATIENT CARE PROCEDURES



HIGHER-THAN-MINIMUM REGIONAL STANDARDS APPROVAL PROCESS

- Step #1** The Regional Council believes that the region should adopt a higher-than-minimum EMS and trauma regional care standard, in an area in which a state minimum EMS and trauma care standard currently exists.
- Step #2** The Regional Council adopts the higher regional standard and updates the regional plan to reflect this higher standard.
- Step #3** The updated portion of the regional plan is submitted to DOH for approval, along with a separate written request for DOH formal approval of this higher regional standard for implementation within the region. This request includes the specific wording proposed to replace a current state minimum standard.
- Step #4** DOH reviews the proposed standard for statutory authority. If statutory authority exists, the external and internal review processes are initiated. If no statutory authority exists, DOH notifies the region and the approval process is terminated.
- Step #5** DOH utilizes the external and internal plan review process tracks from Process (I), Regional Plan Review and Approval Process, for review purposes.
- Step #6** At the end of the Review and Approval Process the Steering Committee makes a recommendation to DOH regarding the approval or disapproval of the proposed higher regional standard.
- Step #7** Based on this recommendation and its own internal review, DOH then formally approves or disapproves of the implementation of proposed higher regional standard within the region.

HIGHER-THAN-MINIMUM REGIONAL STANDARDS APPROVAL PROCESS



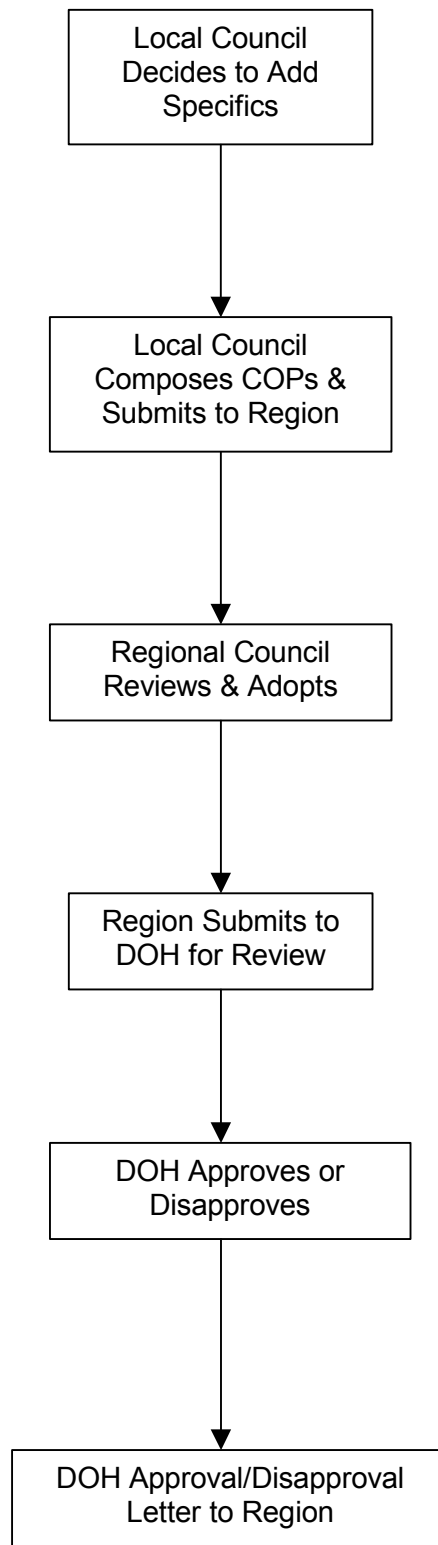
COUNTY OPERATING PROCEDURES (COPs) PROCESS

Counties may compose specifics that clarify how DOH-approved regional Patient Care Procedures (PCPs) are implemented or made operational within their county. These COPs may then be adopted by the regional council and included as addendums to their DOH-approved PCPs. These COPs may be updated or revised whenever necessary, in accordance with the following:

- Step #1** Local council determines COPs are needed or should be updated or revised.
- Step #2** Local council should compose draft COPs language and submit to Regional Council for review and adoption.
- Step #3** Regional council reviews COPs language for consistency with approved PCPs, adopts them as an addendum to their approved regional PCPs, and submits them to DOH for final approval.
- Step #4** DOH staff will review and approve or disapprove the proposed COPs as addendums to the regional PCPs in writing to the region and the county.

New Process Added 1/13/99

COUNTY OPERATING PROCEDURES (COPS) PROCESS



CONFLICT RESOLUTION PROCESS

Define The Problem

- Step #1** Do you share common goals in solving the problem?
- Step #2** Is there a quality requirement that has to be kept in mind in solving the problem?
- Step #3** Do all parties agree to go with the consensus opinion/decision?
- Step #4** Has this problem been considered already and if so, what was the decision?
- Step #5** Do we have sufficient information in order to make a quality decision (i.e., has an expert been consulted)?



Questions

- Step #1** Is it in Statute?
- Step #2** Is it in WAC?
- Step #3** Is it in the Regional Plan?
- Step #4** Is it in Policy?
- Step #5** Is it in Contract?
- Step #6** What does the Statute/WAC/Policy/Contract say?
- Step #7** Is it a local, region or state issue?
- Step #8** Does it have statewide impact?
- Step #9** Is there a quality requirement of such that one solution is likely to be more rational than another?
- Step #10** Is it necessary for all parties involved to agree to the "solution"?
- Step #11** Has this problem been considered by the appropriate committees? If so, what was the decision?
- Step #12** Is the problem clearly stated, and does everyone agree with the problem as stated?

THE FOUR STEPS OF PROBLEM SOLVING

- Step #1** Eliminate “false” conflicts: misunderstandings
- • Ask questions and clarify your assumptions about:
 - What the other person wants or doesn’t want
 - Their reasons for wanting or not wanting something
 - If you determine there is a true conflict of interests, go to Step 2
- Step #2** Analyze your issues and interests, as well as their issues and interests
- Discuss problems before solutions
 - Communicate what you want and why you want it
 - Make a list of your issues and interests, then prioritize
 - Express your perceptions and emotions
 - Encourage the other party to do the same
- Step #3** Find solutions for both parties
- First invent:
 - Brainstorm solutions together (suspend judgment)
 - Sit side-by-side
 - Then decide
 - Consult; don’t dictate
 - Be flexible on solutions and firm on interests
 - Stick to your primary interests
 - Look for integrative solutions
- Step #4** If Step #3 is not successful
- Recycle Steps #2 and 3
 - Persist until using a third party or walking away becomes a better choice
 - Put the agreement in writing and set a follow-up date

PROBLEM-SOLVING WORKSHEET

1. Describe the conflict.

Is this a true conflict, or is it a misunderstanding?

2. List your interests as well as the other party's interests, then prioritize.

Your Interests	Other Party's Interests

3. List some possible solutions.
